

AMERICAN AGRICULTURIST.

Designed to improve all Classes interested in Soil Culture

AGRICULTURE IS THE MOST HEALTHFUL, THE MOST USEFUL, AND THE MOST NOBLE EMPLOYMENT OF MAN—WASHINGTON

ORANGE JUDD, A. M., }
EDITOR AND PROPRIETOR.

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ORANGE JUDD, Proprietor.

June.

"Of all flowers,
Methinks a rose is best;
It is the very emblem of a maid;
For when the west wind courts her gently
How modestly she blows, and paints the sun
With her chaste blushes! When the north wind comes
near her

Rude and impatient, then, like chastity,
She locks her beauties in her bud again,
And leaves him to base briars."—BEAUMONT & FLETCHER.

June roses! Who has not seen them, enjoyed
their fragrance, and praised God for the most per-
fect of flowers! In this month the rose culmi-
nates, and gives us its full-orbed splendor, the
highest perfection of its kind. And now while
the queen of flowers is out in all her beauty greet-
ing every body with smiles, we wish to say a few
words of cheer to those who have begun rose
culture, and of exhortation to the unfortunates,
who have not yet welcomed the rose to their
flower borders. Flower borders! Alas, there are
those in this goodly land, fanned by winds from
the sweet south, kissed by the sunshine, and wa-
tered with abundant showers, who have not a
solitary rose bud upon their premises. They are
not pagans, they are not landless, they are not
poor in worldly goods or home comforts. Many
of them are the lords of broad acres, proud of
their well filled barns, and sleek cattle, their tas-
seled corn fields, and their blooming potato patch-
es; but they have never laid out a flower border
or planted a seed or shrub whose sole office in the
earth is to administer to our esthetic wants.
Poor unfortunate men, may Heaven help them.
They are more to be pitied than the deaf and
dumb. They do not half live in whom the love
of the beautiful is blotted out, or what is the same
thing, in whom it has never been cultivated. It
is said of the savages of the Sandwich Islands,
when they were first visited by the missionaries,
that they manifested no pleasure in beholding the
sublime and beautiful scenery of their native land.
Nothing moved them to rapture, but the gross
pleasures of the palate, and the vicious indulgen-
ces of their heathen rites. It is possible for peo-
ple to grow up in a Christian land, almost as in-
sensible to the grand and beautiful in Nature.
They are so accustomed to the rough labor and
drudgery of the farm, are so indoctrinated in the
utilitarian creed, that they only appreciate what
is good to eat and to drink, to wear and to sell.
So hopelessly set are they in these notions, that
they rather pride themselves upon this insensi-

bility, and glory in their shame. They admire a
luxuriant meadow, but it is not for its verdure,
its blooming grasses, or its graceful motion when
the wind sweeps over it as over the waves of the
sea. They only think of three tons of hay to the
acre, and fifteen dollars a ton, clean cash. They
admire a thorough bred horse, but it is not for his
glossy coat, his stately step, his fine form, or his
speed upon the road. He is an instrument of
gambling, or an article of merchandise, worth a
thousand dollars. They would as soon be caught
stealing sheep, as cultivating a flower border, or
putting up a bouquet for their wives or daughters.

Now we are not going to call names, and tell
just where these people live. Suffice it to say,
that we have have seen them, shaken hands with
them, and feel very sorry for them, as we do for
all who have malformations and need treatment.
We hope that the rising generation of farmers
will have fewer examples of this class, and it is
with this hope that we call the attention of our
readers, the younger portion of them especially,
to this very important subject.



While these beautiful JUNE days are upon us,
and the air is filled with fragrance, and the gar-
dens are full of flowers and bird songs, it may be
possible to convince some of the incorrigible ones
that flowers are worth cultivating. They are not
only charming for the gentler sex, but appropriate
for man. He is wanting in true manhood who
does not admire flowers—who looks with indif-
ference or contempt upon a violet or a rose. It
is not the chief end of man to grow corn and po-
tatoes, or to raise cotton and bacon. Man was
formed for repose as well as for action—for con-
templation as well as for work—for communion
with nature as well as with his fellows. Time
spent in floriculture is not lost to the best pur-

poses of life. These fair frail things are among
the sweetest gifts of the Creator, given us for the
adornment of our homes, to be loved and enjoyed,
to give fitting expression to sentiments and occa-
sions for which human language is too poor.

Fortunately, in this land, there is no lack of
flower worshippers. Even the insensibles, who
have never handled a rose, and affect to detest its
fragrance, as if it were skunk cabbage, or hen-
bane, are quite likely surrounded with neighbors
who are skilled in floriculture. Let them look
over the way, and they will see roses trained to
the sides of the house, to the trellis work around
the portico, to frames constructed for the purpose
—roses white and yellow, blush and crimson, the
climbers and the standards, filling every appro-
priate place around the house and garden, where
they can be seen and enjoyed. The honeysuck-
les and the wistarias, the pinks and violets, the
mignonette, and the whole tribe of annuals are
there in their appropriate seasons. It is a beau-
tiful sight, and all who pass by, as well as the
inmates, enjoy the spectacle.

The home so adorned is far more prized, and
loved, than the desolate dwelling that simply min-
isters to man's physical wants. Here the mind
and heart have something to feed upon. There is
a ministry of the beautiful constantly going on
amid the utilities of life, and children come up
with quickened sensibilities, appreciating and en-
joying, with keenest relish, the fine forms and
colors in Nature. Floriculture is one of the bonds
that bind them to their homes, and to the virtues of
domestic life. There is always something to in-
terest them at home, and the attractions of the
tippling house, and bowling alley, are forestalled.

Human nature craves with strongest instinct
amusement, and relaxation from the stern cares
and utilities of life. This want must be met in a
rational way, or it will find expression in vicious
indulgence. Man will not be goaded by necessity—
by work—all the while. He will refresh himself
with play of some kind, something to relax the
muscles, and afford pleasure. Do not bring up the
old and hackneyed objection, that flowers are of
no use. It is for that very reason that we would
have you cultivate them. Pray indulge your-
selves in one thing that has no appreciable value
in dollars and cents, that has leave to grow and
bloom for the sake of its own beauty, that lives
simply because you love it, and will have it.
Whatever your circumstances, you can have at
least one flower, and that the fairest and best.

"Dear flower of Heaven and love! thou glorious thing
That lookest out the garden nooks among;
Rose, that art ever fair and ever young,
Was it some angel on invisible wing
Hovered around thy fragrant sleep, to fling
His glowing mantle of warm sunset hues
O'er thy unfolding petals, wet with dew,
Such as the flower-fays to Titania bring?
O flower of thousand memories and dreams,
That take the heart with faintness, while we gaze
On the rich depths of thy inwoven maze;
From the green banks of Eden's blessed streams
I dreamed thee brought, of brighter days to tell
Long passed, but promised yet with us to dwell."

Calendar of Operations for June 1859.

[We note down sundry kinds of work to be done during the month, not so much to afford instruction to practical men, as to call to mind the various operations to be attended to. A glance over a table like this will often suggest some piece of work that might otherwise be forgotten or neglected. Our remarks are more especially adapted to the latitudes of 38° to 45°; but will be equally applicable to points further North and South by making due allowance for each degree of latitude, that is, earlier for the South, later for the North.]

EXPLANATIONS.—*f* indicates the first; *m* the middle; and *l* the last of the month.—Doubling the letters thus: *ff*, or *mm*, or *ll*, gives particular emphasis to the period indicated.—Two letters placed together, as *fm* or *ml*, signifies that the work may be done in either or in both periods indicated; thus, work marked *fm*, indicates that it is to be attended to from the first to the middle of the month.]

Farm.

The husbandman has very little leisure, between putting in his late crops and commencing to till his first plantings. Even now, the first day of June, before the buckwheat and turnip fields are sown, the corn and potatoes, carrots and cabbages, require going through with the plow and cultivator, followed by the hoe. Some of the late implements designed to relieve hand-labor are well adapted to their work; the horse hoe almost takes the place of the hand-hoe in the corn field. Whatever is used, see that the ground is well lightened up before the roots have extended far, and early keep down weeds.

If there are any vacant spots which were too wet to plant before, let them not lie idle. There is ample time to grow a soiling crop, if not to ripen corn, upon such land. Let no soil produce weeds only, to scatter their seeds for a future crop. The prospect now is, that everything the farmer can raise will be wanted, at home or abroad, and at higher rates than for some years past.

Barley—Will still succeed if sown, *ff*.

Beans—Plant, *ff*, any not in, among corn or alone.

Beets—Mangel-wurtzel and Sugar varieties succeed well when sown, *ff*, *m*.

Buckwheat—Sow, *ll*, or even first of July, that it may fill its kernels in the cool weather of Autumn.

Butter and Cheese—Read the prize articles as they appear from month to month, and try to make such products as will suffer no discount when thrown into market.

Cabbages—Plow and hoe early ones, *ff*, *m*. Plant, *m*, *l*, among early potatoes and elsewhere for late use. Use tobacco dust, lime and ashes sprinkled over the plants to keep away insects.

Carrots—Hoe and thin early. Much labor may be saved, and a better crop secured by taking the carrot, turnip and beet patch in hand before the weeds get a start. Thin out liberally. Four to six inches apart in the row is near enough for carrots.

Corn—Replant failures, *ff*. It is not too late for the King Philip or other early varieties to ripen now. Put in freely for soiling, especially if the pasture ground is small. Milkmen well know its value, and usually plant largely, in drills. It is well to make three plantings, one, *f*, one, *m*, and also at *l*.

Fences—Should be examined often.

Grain Fields—If there is any foul stuff in them, select a "seed patch," and pull out every weed, *ff*. Rye and Wheat, even, will require cutting in some places, *ll*.

Haying—Will commence, *m*, *l*, according to the forwardness of the grass. Mowing machines are now so common that the farmer need not commence upon his crop before the grass is ready to cut, nor will he need to cut it down while wet with dew or rain.

Hay-caps—See article elsewhere.

Hoeing will, on many farms, constitute a prominent portion of the work for June. Clean tillage now will make easy work in July.

Manures should be made at every season of the year. Keep the cattle and hog yards well covered with muck; scrape up cattle droppings each morning, and throw them in heaps under cover.

Millet—"Hungarian grass," or other kinds, may still be sown, *ff*, *m*, for soiling, or ripening even.

Potatoes—Keep free from weeds, but do not use the plow among them after they commence blooming.

Poultry require little attention if running at large, save feeding a little grain and collecting eggs. Where it is necessary to confine them in buildings or yards, it is always well to let them out for a short time about sundown. Keep roosts dusted with plaster, charcoal or muck, and barreling the contents frequently, for guano.

Pumpkins will still be in season if planted *ff*, either among corn or potatoes, or in patches by themselves.

Sheep—Shear, *ff*, if not done. Guard against dogs.

Sorghum—Drill in a quantity, *f*, *m*, for soiling purposes.

Stock—Raise the best calves, lambs and pigs to breed from. Provide improved breeds of cattle and horses to cross with your own stock.

Swine—Where there is an orchard or small pasture accessible, hogs may properly have the range of it, but by all

means, keep them from the highways and dooryards. If shut up, give them weeds, turf, and other green stuff, daily, keeping their pens and yards supplied with absorbents.

Tanners' Bark—Peel from hemlock and oak, *m*, *l*, standing it up carefully to dry.

Tools for hay and grain cutting, should all be procured and put in working order, *ff*, *m*. With a large quantity of hay and grain to cut, a mowing machine will, doubtless, pay, besides securing it in better order.

Turnips—Sow *ll*, or in next month. Read articles.

Weeds—Keep them down while small, if you would save heavy labor afterwards, and secure good crops.

Orchard and Nursery.

If the work of last month was properly attended to, there is not much to do now except to keep down weeds and stir the ground, both in the orchard and nursery.

Budding—May be performed, *ll*, at the South. Remove suckers from trees budded last season, and keep the growing buds well tied up.

Caterpillars—Destroy, *ff*, any remaining until now.

Evergreens—These may still be safely transplanted, *ff*; do not let the roots be exposed to the sun while out of the ground. Water and mulch trees planted last month, if the weather prove dry.

Fruit—Jar the trees gently, and pick up all punctured fruit which falls. Thin out, *ll*, where it has set too thickly.

Grafts—Examine and loosen any bandages cutting into newly grafted trees. Replace cement or grafting wax where it has peeled off. Rub off suckers.

Hoeing—Will be the heavy work of the nursery during this month. The plow, horse-hoe, or cultivator, will greatly facilitate the operation. Hoe about orchard trees, to keep down weeds and grass.

Inarching—May be begun, *m*, *l*.

Insects—Wage incessant war against the whole tribe of fruit insects—caterpillars, curculios, apple moths, borers, pear and cherry slugs, bark scale, etc. All need attention. Read article on page 181, and in addition to the means there noted, hang open-mouthed bottles, half full of sweetened water, in the branches of trees, to entice and drown the parent millers of apple, pear, cherry and other worms. See, also, the curculio remedy on page 146 of last *Agriculturist*.

Layer, *ll*, new growth of deciduous and evergreen trees.

Manure—Apply a good coating about the roots of bearing trees, to assist them in perfecting a crop. Spread it about at some distance from the trunks.

Mulch *ff*, newly planted trees, especially if it be dry.

Plum Trees—Read directions elsewhere for destroying black wart. Give curculios no peace, and crops of plums may still be secured.

Pruning—May be commenced, *ll*. Especially is the latter part of June a good time to do what little pruning evergreen trees require. Cut or pinch back shoots of bearing fruit to induce fruit buds.

Scale—The eggs have now hatched out, and the young "bark lice" can easily be destroyed with soap or potash and water, applied with a scrub brush, or rags tied to a stick. They can even be washed off with water only. It is better, however, to add some wood ashes or other alkali. Seedlings—Especially evergreen, may now require water and shade.

Stocks—Some of the pear and plum stocks which have made an early growth will be ready for budding, *ff*.

Water evergreen and other newly planted trees, if the ground is very dry. Apply it at night, first mulching around them.

Weeds—Keep down both in nursery and orchard.

Kitchen and Fruit Garden.

The early crops are now in, and growing rapidly. A large portion of the gardener's labors will be needed to keep them free from weeds, and to stir the soil about the plants. The surface of the ground should not be allowed to crust and shut out the air and dews. Frequent hoeings are beneficial in other respects than merely keeping down weeds.

There is some planting still to be done, most of which should be attended to, *ff*, *m*.

If the garden has been provided with an asparagus bed, and there is a good row of rhubarb roots along the border, there should now be a plentiful supply of each. Strawberries are nearly ready to ripen. The early "greens" are also abundant, and with currants for sauce or pies, and cherries for dessert, the farm gardener may greatly diminish the salt junk diet of Winter and early Spring.

Asparagus—Keep beds well stirred and free from weeds. Cutting should be omitted after the first week, or at latest by the middle of June, as it started early this season.

Too late cropping injures the bed.

Beans—Early Kidneys, and Limas even, may still be planted *f*, *m*. See that runners are poled.

Beets—Sow the remaining Summer crop, *ff*, and *m*, *l*, for Autumn and Winter use. Hoe, weed and thin early beds, using the young plants for "greens," for which they are excellent, "roots and all."

Blackberries and Raspberries—Should have been staked or tied to trellises last month. See to any neglected, *ff*. Borecole, Brussels, Sprouts, Broccoli, Kale, &c.—Plant out for late crops, *f*, *m*.

Cabbage and Cauliflower—Sow seed, *ff*, for late planting. Set out, *f*, *m*, for Autumn, and *ll*, for Winter use. Hoe often, and destroy cut worms, replacing plants eaten off by them.

Carrots—May still be sown, *ff*. Early sowing is preferable, however. Hoe, weed and thin while they are small and work out easily, else heavy work is before you. It is better to select clean ground for sowing this crop.

Celery—Set plants for a general crop in trenches, *m*, *l*, watering and shading for a few days.

Corn—To keep up a good succession, plant sweet varieties, *f*, *m*, *l*, at intervals of ten or twelve days. The last plantings may be after early peas, or between rows of potatoes nearly ready to dig.

Cress—Sow, *f*, *m*, *l*, for a constant supply.

Cucumbers, Melons and Squashes—These may be planted, *ff*, with fair prospects for a crop. Cucumbers for pickles should be put in *m*, *l*. Dust vines with flour and pepper, or other offensive substance, to repel bugs.

Herbs—Many of these are now coming into flower. Cut and dry them in the shade when in full bloom.

Hoeing—Is the work for June, and needs following up closely. Besides keeping down weeds, it is almost rain and manure for the growing plants. Commence on every crop in season. If rows of young vegetables are left till they can scarcely be seen among the weeds, the labor of cleaning them out will be very great, and the plants themselves will be injured by disturbing the roots in indicating weeds.

Egg Plants—Set out, *ff*, for full crop, and *m*, for late.

Fruit—Collect any now ripening, and thin overbearing trees or bushes.

Gooseberries—Keep well hoed, or better, mulch with salt hay, tan bark or sawdust, which will prevent weeds from growing, and keep the ground moist, thus rendering the berries less liable to mildew.

Grapes—The vines are now pushing ahead rapidly, and require heading back and thinning out. Rub off unnecessary shoots and pinch back bearing branches to six or eight inches from the bunches. Hand pick insects, and entrap in bottles the millers about depositing eggs upon the vine. Bonfires or torches about the garden or vineyard, as described elsewhere, will be of much service in destroying them in localities where they abound.

Insects begin to be troublesome at this season. Destroy the slugs on pear and cherry trees with whale-oil soap dissolved in water, and thrown upon the trees with a syringe having a sprinkler at the end. Dusting with wood ashes or air-slacked lime, will also destroy them. Apply when the leaves are wet with dew.

Lettuce—Sow and plant out at intervals of a week, during the month, to keep up a constant supply.

Onions—Hoe, weed and thin, *ff*, *m*.

Parsneps and Salsafy—Hoe and thin, *ff*, *m*. Avoid leaving them too thick in the row.

Peas, sown at this season, usually escape the weevil, so that *ff*, is a good time to put in the main crop. Sow *m*, *l*, in the garden, for late use. Keep well hoed and bushed or supported with stakes and twine. Hilling a little is an advantage, unless they were covered two or three inches. The first sowings will furnish peas for the table, *m*, *l*.

Potatoes—Hoe and weed thoroughly. Plant late cabbages among early potatoes, to occupy the ground after they are dug.

Radishes—Sow as lettuce, among and between other vegetables, *ff*, *m*.

Rhubarb—Is now yielding a full supply. By pinching off the seed stalks as they appear, the leaves may be pulled during the entire month. The Linnaeus variety we have used until the month of September.

Spinach—Clean off the early crops for a second sowing, or for late vegetables. Fresh sowings may be made *f*, *m*, *l*, to keep up a family supply.

Strawberries—Clean beds, and mulch with straw, sawdust, or tan-bark, *ff*. They will soon be in full bearing.

Thinning out both vegetables and fruit should be attended to early. Plants are usually left too crowded.

Tomatoes—Set them out, *f*, *m*, for late use. Keep well hoed, and bushed or staked.

Transplanting—Perform *ff*, *m*, selecting cloudy or wet weather, or water and shade after the operation. Remove with the plants as much unbroken earth, and undisturbed root fibres as possible.

Turnips—Sow early varieties, *ff*, *m*, for Summer use. Ruta-bagas for Winter should only be sown *ll*, or next month.

Water strawberry beds, *ff*, if the weather continues dry. Newly planted trees, and plants recently set out may also require water.

Weeds—Pull, hoe and root out with plow and cultivator. Give them no room in the vegetable garden—not one of them.

Winter Cherry (*Physalis*)—Transplant from seed bed,

f. m. Early sown seed may still come up. It sometimes lies in the ground two months before vegetating.

Flower Garden and Lawn.

At this, the blooming season, the Flower Garden is expected to make a fine show of a large number of the perennial and biennial plants. Most of the Green-House, and many of the Hot-House plants have been transferred to the open border, and with their rich colors lend attractiveness to the grounds.

The chief labors should be directed to keep down weeds, to stir the soil, and thin the plants. It is not too late to sow many of the Annuals, which will spring up quickly now that the ground is warm. If the weather be very dry, soak the seeds for 24 hours before sowing.

Bedding Plants—Complete putting out, using verbenas, geraniums, petunias, pansies, daisies, &c.

Box Edging—Plant still, selecting a moist day, or watering and shading. Cuttings may also be made, f. m. Shear old box, ff, if not previously attended to, selecting damp weather if possible, for the operation.

Bulbs—The early flowering sorts planted last Fall are out of bloom, and may be lifted and dried, m, ll, if they are to be reset. It is not best to disturb them too often however.

Carnations and Pinks and Pico-

tees—These may be layered, m, ll,

as seen in the cut

opposite. It is

not absolutely necessary

to slit the

stalk where it is

laid below the

ground, as here

shown. Cuttings

may also be

struck at the

same time, but

are not as sure to grow as layers.

Climbers—Keep these well trained to twine, stakes, or

lattice work.

Dahlias—Plant out, ff, m, watering if needful.

Evergreens—May still be planted upon the lawn and in

the borders, ff, m, watering and mulching. In exposed

situations they may need confining to stakes to prevent

their being awayed by the wind.

Flower Stalks—Cut away as fast as they are out of

bloom. They have an unsightly appearance when left in

the flower border. Besides, they should give place to the

later growing annuals.

Geraniums—Plant out, ff, any remaining in pots. They

mass finely, either in distinct colors, or when mixed.

Gladioluses—Stake, ll, those put out last month.

Grass Edging or Borders—Shear and rake off every few

weeks, leaving them smooth and even.

Gravel Walks—Keep free from grass and weeds, raking

and rolling frequently. Add fresh gravel to old paths.

Hedges—Clip, m, ll, rapid growing deciduous, and even

evergreen hedges.

Ho often among and around plants, to loosen the soil

and induce moisture, as well as to keep down weeds.

House Plants—Bring out any remaining in the green-

house or conservatory, intended for out-door planting.

Insects—These are easiest kept in check by taking them

early. A few destroyed now will kill many coming broods.

Lawns have the finest appearance when thickly covered

with fine grass only 1 or 2 inches in height. Hence,

frequent mowings are desirable. Skill is required to cut

the grass evenly with a scythe. Keep both grass and

weeds from growing for a few feet about young trees.

Oranges, Lemons, Oleanders and Myrtles—Plant out in

the open borders, ff, m, or place out in their tubs.

Potted Plants will need frequent waterings, unless

turned out into the border. Shield from high winds.

Roses are the pride of the flower garden in June.

From the low growing Tea to the standard Bourbon, June,

Pillar and Prairie Climber, red, pink, blush, lilac, yellow

and white roses, are in full flower, shedding both beauty

and fragrance. If the border contain but a single flower,

let that be a Remontant rose. Bugs, slugs and leaf hop-

pers will dispute with you their possession. The rose-

bug may be destroyed by shaking them into a shallow

basin of hot water. Whale-oil soap, dissolved at the rate

of 1 pound to 3 gallons of water, will destroy both slugs

and thrips. Pour it on from the rose of a watering-pot, or

use a hand-syringe with a sprinkler attached.

Stake flowers and shrubs requiring it.

Transplant, m, ll, annuals sown last month, retaining

earth about the roots if possible. Water and shade, un-

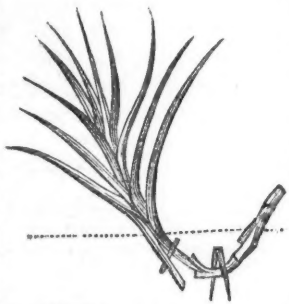
less a damp day is chosen.

Verbenas and Petunias now make a fine show if a

good collection was put out last month. They may still

be planted, ff.

Water—An excess is often used on plants at this season.



If the soil has been deeply worked, little water will be required in ordinary seasons, except on plants or trees newly set out. Water from the clouds, when plants are shaded, is better than that artificially applied.

Weeds should not be allowed so much as a start now.

Green and Hot Houses.

Most of the plants usually kept in these houses are now in the open air. In extensive collections, the more tender plants are better managed in than out of the house, and on that account are still kept upon the shelves. They now require abundance of air and plenty of water. The upper ventilators should be kept open during fair weather. Opening both upper and lower would dry the atmosphere too rapidly. Measures should now be taken to increase the stock of Winter blooming plants; and many of the seedlings and cuttings will need repotting. In carrying out and arranging pots in the open air, place them in a neat, orderly manner, convenient of access. The situation should be so sheltered that the plants will not be blown about by high winds.

Azalias are now making a rapid growth and need abundance of water, and some pinching in.

Bud, m, ll, oranges, lemons, citrons, shaddocks, &c.

Camellias do quite as well in the open border, to which they may be carried, ff. If retained on the shelves in the house, water and syringe often. Watch for and check the approach of insects.

Cuttings of Chrysanthemums, Myrtles, Hydrangeas, Fuchsias, Geraniums, &c., may be made and potted, f, m. Fuchsias—Repat to make fine specimens for Winter blooming.

Geraniums are in full flower and require liberal waterings. Increase the stock by cuttings and layers.

German Stocks—Plant in borders, ff, m.

Grapes—The early houses will now be ripening their fruit, and the syringing overhead must be omitted. Some of the later crops need a further thinning. They all want abundance of air with a free circulation.

Insects are particularly troublesome at this season; and require much care to forestall their depredations. Keep them in check now, unless you wish to be overrun with them in Autumn.

Layer and Inarch woody and other plants which do not root readily from cuttings.

Pines require abundance of air and less water as the fruit approaches its ripe state.

Potting—Continue, f, m, ll, and provide a supply of prepared earth for extensive use next month.

Roses—Plant in borders, ff, any remaining in the houses. Syringe with oil soap to destroy slugs.

Seedlings—Transplant, ff, m, to borders or pots as after culture renders necessary.

Verbenas—Get up a stock for Winter blooming, by layering, inserting cuttings, &c.

Water—Give as is needful. With small pots in a dry atmosphere, a little may be necessary night and morning. Examine after rains to see if drainage is perfect.

Apiary in June.

BY M. QUINBY.

As soon as the bees are crowded outside of the hive during any part of the day it is time to add the surplus boxes. If the honey is intended for home consumption, a wood box will answer every purpose; but for market, one with glass sides is usually the most saleable. Neither of them should be more than five inches deep, and should have some pieces of nice white comb stuck in the top, the larger the better, but very small ones are much better than none at all—the bees will commence work more willingly. To make these combs stick fast, melt some beeswax, and dip one edge in it, and apply before cooling. Old colonies should be induced to begin in the boxes if possible before they swarm, as in that case they will be much more likely to finish them than to begin after swarming when not very strong. Holes can be bored in the top of the hive if necessary, even when it is filled, using tobacco smoke to keep the bees quiet—six or eight, an inch in diameter will do. They should be bored with a center bit or something that will work smoothly. The boxes should be removed as soon as filled, to obtain pure white combs, empty ones may be put in their places as long as the bees work in them. There will be little risk but that the bees will provide for themselves. To get rid of the bees that are taken off with the boxes, put them in an empty barrel, in any convenient place, and throw over it a thin cloth; the bees in their endeavor to escape, will gather on the under side; it should be turned over occasionally till all are gone. They are not disposed to sting at all after being taken from the hive. New swarms before their combs reach the bottom of the hive, unless near the end of the season should receive a set of boxes. There is often an advantage in putting on boxes immediately when hived, but nearly as often a disadvantage, on account of their rearing brood in the combs, which makes them black and tough; they are also very sure to store bee-bread where they raise brood. It is

quite safe on that account to put them on after being hived three or four days.

June is the month for swarms. In small apiaries, in good seasons, it is quite common to average two or three swarms from a stock. The first one is usually large enough for a good colony, the second half as large, the third a quarter; consequently two of the second and four of the third issues will be needed to make a colony equal to the first. The time of issuing, whether the first or last of the month, should have some consideration in governing the size of the colony; as a second swarm of ordinary size the first of June would be about equal in value to a first one a month later. Two first swarms should be prevented from issuing at the same time if possible, as they are quite sure to cluster in one mass, and are worth only about two-thirds as much on the whole, as if both are kept separate. Indications of the first swarm can usually be seen in the commotion of the bees about the entrance a few moments before flying, and for a much longer time when the interior of the hive can be seen through glass. See description on page 135 of the May *Agriculturist*. When one has started and another is about to start, sprinkle the latter well with water, which will delay the issue till the first is hived. If the last is then disposed to unite with the first, throw a sheet over the hive and keep them out.

When two large swarms naturally get together, they should be divided in hiving. Set the empty hives three or four feet apart, and with a dipper put about an equal number to each alternately, and make them enter by the means mentioned last month. As soon as all are in, set them twenty feet apart; if a queen is in each, the bees will be quiet, if not, they will leave the hive destitute of a queen for the other, a few going at a time. The operation may be repeated till successful, by shaking out the bees, or if too much trouble, they may be hived as one swarm. It is not advisable to use a larger hive than usual, as it will be a disadvantage another year. The boxes may be added the next morning, to give them room. The bees construct combs below so fast that the boxes are seldom used for brood in such cases. Third, and sometimes second swarms, when late in the season, should be returned to the parent stock, unless they mingle with others before being hived. The least trouble is to hive, and let them stand till next morning, then jar the bees on a wide board in front of the old hive, putting a few near the entrance, which will set up a buzzing as a call for the others, that will now creep towards it, and give an opportunity to see the queen which should be kept out. Be sure and keep all new swarms well shaded through the middle of the day; also old stocks when very hot. Should the bees of any stock fail to increase, or fall much behind others, the first of this month, the cause should be looked for; if diseased brood, drive out the bees, and let them commence anew. When done in season, a healthy colony is usually the result. It is generally put off till so few bees are left, that they will not stay in the hive. Yet it is better even then than to let them run down entirely and spread the disease further, and breed a hive full of moth worms. If flowers do not yield honey at the time of the operation, the bees must be fed. If a colony is weak for want of a queen and otherwise healthy, it can be frequently saved by putting in a small swarm containing a queen, or by giving it a cell containing a queen from some other hive. Allow no hive containing combs to stand in the apiary without bees to keep out the moth; such combs are found and destroyed very quickly in warm weather. If it is desirable to save them, smoke with brimstone a few times, which will destroy the worms, and will not injure them for the bees if aired a day or two previously to using.

NO TIME FOR SWAPPING.—An Indiana man was travelling down the Ohio, in a steamer, with a mare and a two year old colt, when by a sudden career of the boat all three were tilted into the river. The hoosier, as he rose puffing and blowing above water, caught hold of the tail of the colt, not having a doubt that the natural instinct of the animal would carry him safely ashore. The old mare took a "bee line" for the shore, but the frightened colt swam lustily down the current, with its owner still hanging fast. "Let go the colt, and hang on the old mare," shouted some of his friends. "Phree, booh!" exclaimed the hoosier, spouting the water from his mouth, and shaking his head like a Newfoundland dog, "it's mighty fine you'r telling me to let go the colt; but to a man that can't swim, this ain't exactly the time for swapping horses."

An Irishman, driven to desperation by the stringency of the money market and the high price of provisions, procured a pistol and took to the road. Meeting a traveller, he stopped him with, "Your money or your life!" Seeing that Pat was green, he said, "I'll tell you what I'll do. I'll give you all my money for that pistol." "Agreed," Pat received the money and handed over the pistol. "Now," said the traveller, "hand back that money, or I'll blow your brains out." "Blaze away, my honey," said Pat; "nary a drop of powder there's in it."

Breeding In-and-In.

BY A CATTLE BREEDER.—NO. III.

[EXPLANATION.—THE STATE OF THE DISCUSSION.—Owing to the distance of the writers, and a slight misunderstanding, a brief explanation may be needed in regard to the state of the discussion. In Jan. No. p. 10, "Cattle Breeder" opened the discussion. In Feb. No. p. 43, Mr. Clay replied under eight heads. In March No. p. 75, "Cattle Breeder" replied to four of these items, and intimated an intention to reply further, but as stated in a recent private note, he meant to say, after Mr. Clay's reply to his first part. Mr. Clay, of course, delayed for "Cattle Breeder's" second part. Not receiving this, we wrote to Mr. Clay to that effect, and he at once forwarded the article, (No. 2) which appeared in our May No., p. 132. We now have "Cattle Breeder's" No. 3, in which, as will be seen below, he first replies to the remaining four heads in Mr. Clay's February article (p. 43), and second, responds to Mr. Clay's May article, (p. 132). We reassert this unavoidable mingling of the different parts of the discussion, for we consider it a very important one, valuable, and highly instructive to every reader of this journal. It will be well to read the whole over—say in the following order—First, Jan. No., p. 10—Second, Feb. No., p. 43—Third, March No., p. 75, and also the first part of the article below—Fourth, May No., p. 132—Fifth, the second part of the article below.—ED.]

As I did not fully answer all Mr. Clay's strictures on this subject in the March number of the *Agriculturist*, I now submit some further remarks. The subject is too important to the great mass of American stock breeders to be passed over with a few sweeping or positive flourishes of the pen, on either side; and having taken my position I propose to carry it out, in now noticing the remaining points in that gentleman's March article.

5th. *False proof.*—Mr. Clay denies that Bakewell bred in-and-in with his improved stock—particularly his sheep. Let us see. Bakewell finding the animal which he wanted not made ready to his hand, yet the material out of which to breed it abounding in several sub-varieties of the long-wooled breed, had to begin somewhere; and like a sensible man made his selections to commence with from the best he could find, irrespective of what particular name, or locality, so that they were of the breed he wanted, viz.—a long-wooled sheep that would take on high flesh at an early age. Of the best specimens that he could get, both rams and ewes, he formed his flock, and then he bred intensely in-and-in until he got what he intended to get when he started. He did refine the long-wooled sheep, and got it up to perfect carcass, in size, form, and weight, unequalled by any other breeder of his day. And so he left his sheep at his death, which had acquired such celebrity that to this day they hold the names Bakewell, Dishley, and new Leicester, (the names of himself, his farm, and County),—synonymous terms—as a distinct breed.

That Bakewell's successors did not maintain the standard of his flocks in all their high qualities, proves nothing further than that they did not inherit or purchase Bakewell's skill and brains, as well as his sheep. Bakewell also may have bred for some other quality in his sheep, which his successors either did not want, or comprehend, and they may have failed in getting their own demand out of them. But that is of no consequence to the principle. Bakewell did succeed in his object—getting a finely developed race of sheep out of coarse, and common, material by a persistent course of in-and-in breeding.

With the "Long-horned" cattle which Mr. Bakewell found in an advanced state of perfection, so far as symmetry of form, and a capacity to take on flesh was concerned, he adopted in-and-in breeding to an extreme degree—maintaining, after several years' practice, that he had *much improved them*. See description of the "Long-horns" in "Youatt's British Cattle," London edition.

6th. *Coleman on the Dishleys.*—Mr. Clay will excuse me for declining to receive the authority of Mr. Coleman, in the stock line—an estimable gentleman in all the moral and social relations of life, but a theorist only, in his knowledge of farm stock, and not likely to draw his conclusions from the best authorities. 7th. As to the authority of R. L. Allen, which Mr. C. quotes, I coincide entirely with Mr. A.'s remarks coupled with the conditions which he attaches to them.

8th. *Jonas Webb.* Unfortunate here, again. Mr. Webb, does breed closely in-and-in. He so says, himself, and it is a fact of universal notoriety all over England where his sheep are known, that it is so. I do not assert that he never goes out of his own flock for a cross. He may do so, now and then; but where can he better himself? He has different families in his own flocks from one to the other of which he crosses, but they are essentially of the same origin, and blood. Webb's system is that of in-and-in breeding, to all intents and purposes, although, perhaps, not so closely as some others.

In reply to my remark of Price's Herefords being in-and-in bred for forty years, it is not argumentative in Mr. Clay, to say, "I know nothing of the Hereford herd alluded to, but venture that if the truth were all known 'A Cattle Breeder' would be as wide of the mark there, as in the Bakewell case, and the Stud-Book." If Mr. Clay can show me wrong, by authority, good; but simple assertion will not do. Mr. Price was a man of character, well known in England. He made that statement many years ago, over his own name, in the *British Farmer's Magazine*, a work of acknowledged authority in England,

in an elaborate article on Hereford Cattle, prepared for that publication, which none who knew him disputed.

We will see about "the Stud-Book," before we get through.

As to the Collings—Charles, in particular—the next subject of Mr. Clay's criticism: We will not talk about his Galloway cross which I think as little of as Mr. Clay does, but of the Colling cattle, *proper*, I concede that he obtained his original breeding stock of other and older breeders, and the very best he could get in all the Short Horn region, consisting of a rare lot of cows, and the bull Hubback—which bull by the way, he only used and bred from two years. But the descendants of that bull, both in bulls [Poljambe (263) a grandson of Hubback. Mr. C. asserted did his subsequent stock the most service] and heifers, he kept and bred together—in-and-in, to the very closest affinities, and in all possible ways in some instances, to the third and fourth direct generations—that is, a bull to his own daughters, grand-daughters, etc., as in the case of Favorite. He had different families, or tribes of cattle, I admit, taking their names and genealogies on the dam's side from the original cows from which they sprung, but they were mainly from the same bulls, as were Robert Colling's, his brother, with whom he interchanged bulls on frequent occasions. I do not say how much the Collings improved their herds beyond the originals from which they descended, or whether they improved them at all, but we have never heard that the Short Horns deteriorated in their hands: and it is quite certain that when they sold their herds and retired from breeding, no cattle in England stood higher than theirs, or brought greater prices; and if any instances of closer breeding can be found than they practiced throughout their whole career as breeders, I should like to know it. The pages of Coate's Herd Book, Vol. I, will corroborate my assertion.

Since the days of the Collings, although many years cotemporary with them, the late Thomas Bates, of Kirk-leavington, stood at the head and front of English Short Horn breeders, until his death. He had some of his best stock, male and female, from both the Collings, and the blood of their herds in others. He bred in-and-in, intensely, never going out of his own herd for a bull with any success, except in one instance, that of Belvedere (1706), and he a descendant of R. Colling's herd, closely bred in-and-in, through his ancestors for many generations back in other hands. A second cross direct from Belvedere, on his own daughter, (Duchess 34th) produced the best bull—so publicly acknowledged—in all England—Duke of Northumberland (1940). That Duchess blood, (with the Oxfords, descendants of the Matchem cow which he introduced to his herd in the year 1831, by persistent in-and-in breeding, the latter and her stock to his Duchess bulls of the Belvedere cross, and afterwards by their own crosses,) raised his herd to the highest point of reputation, which their descendants still maintain both in England and the United States.

Next to Mr. Bates, stood, and now stand the Booths, always prize winners on their cows wherever, and whenever, they have showed. They are, and always have been in-and-in breeders—deeply so. So was Mason, of Chilton, and Maynard, and Wetherill. Sir Charles Knightly, another celebrated name in the annals of Short Horns, has long been an in-and-in breeder; and so, in fact, were a majority if not all of the English Short Horn breeders who acquired any high reputation in their herds. Indeed it is useless to multiply instances of the kind, not in cattle alone, but in every kind of domestic stock down to dogs—of every different breed, as well as chickens and pigeons—the two latter "bred to a feather" in style and uniformity. Multitudes of cases could be named relating to "fancy" animals, particularly where striking points, characteristics, and properties were required, and only to be obtained by a concentration of blood, and with that blood a combination of the qualities connected with it. The inevitable tendency of descent in animal life is to partake of the strong characteristics of the immediate parents in the offspring, more or less, and the form, appearance, and organization which predominates in them, but which, if not strongly concentrated in such parents, strikes off to their parents' ancestry, or collaterally, as the case may be. How many instances do we constantly witness in the human family, as well as in animals, where the children much more resemble a grandparent, or collateral relation than either of the immediate parents! This arises from the aggregation of different strains of blood, and different characteristics in the parents, perhaps for generations back. So diverse, frequently, that scarcely a resemblance will occur between a large family of children. We have seen a pair of black or brown haired parents having red, light, and sandy haired children, with widely different complexions and forms, and not a doubt of their legitimacy—and all those marks of feature, complexion and form, could be easily recognized in their collateral relatives of the previous generation. Mankind, in personal and physical appearances, breed like the whole animal world, under the same nat-

ural laws, and conditions, and I mention such instances here, as being so familiar to almost every day observation that no one will deny it. I will next talk of other matters including horses, and the Stud-Book.

REPLY TO MR. CLAY'S MAY ARTICLE.

In reply to Mr. Clay's No. II, in the *May Agriculturist*, I shall not be led off on an issue which he himself has made, and aside from the original proposition with which I first commenced, viz.: that in-and-in breeding of brute animals, UNDER PROPER SELECTION, is frequently beneficial in promoting the highest development of physical perfection, and not adverse to the ordinary course of nature.

Instead of confining his remarks to my examples of the brute creation, he adverts to mankind to sustain his hypothesis; and as I am free to admit, with much ingenuity maintains, by various authorities, a plausible case—but, mark me, by entirely changing the ground of my argument, to wit: the bodily or physical development only, as I insist upon, under certain conditions, while he couples with it the mental and nervous temperaments and faculties. On this branch Mr. Clay makes his strong argument. I am not going to argue this subject with him for the reasons, that it is not my proposition, and that to elucidate the whole thing it would require more of research than I have now the time to give to it, and take up more of the space of an agricultural paper than you would be willing to allow. Yet I will briefly advert to one or two of Mr. C.'s propositions on page 132 (*May Agriculturist*).

"I deny the statements as regards the Greeks and Romans, and call for the data, &c." For indisputable, current testimony of the domestic, social, and moral habits of the Romans, in their highest state of civilization, power, and renown, just look into those parts of the cities Pompeii, and Herculaneum which have recently been unearthed from their volcanic covering of two thousand years—their pictures, statuary, and every-day familiar sights on which the most noble and exalted of their people indulged. For recorded evidence—a synopsis of many volumes of the chronicles of the obscenity, incest, and depravity of even the proudest historical names in both Greece and Rome, consult Greek and Roman History. See also the "History of Prostitution," lately published by Dr. Sanger, of New-York—a sanitary work of high value; and not immoral tendency. In addition to the many translated works which are there enumerated, will be found names of books written by cotemporary authors, the depravity of whose language is untranslatable into the English tongue, all descriptive of the domestic habits and practices of the highest, as well as the middle, and lowest classes of the Greek and Roman people. If close-breeding was not practised in those nations in their palmiest state, without public scandal, or the decline of the physical faculties, for that reason alone, of the most powerful people of those periods, then history is a falsehood.

As to the mental and moral deterioration of mankind from a persistent course of in-and-in breeding, as Mr. Clay has begged that branch of the question, he may have it his own way, as I have not from the first disputed him. I named the Gueph family of England to illustrate the physical, not the mental, side of the argument, which he, in fact, admits. And that we may end this issue at once, I concede that in communities of people in a close neighborhood, on the same soils, eating the same foods, associating within the same range of objects, and intelligence, with like hereditary, or local diseases, disorders, and sympathies, both of mind and body, close, and continued inter-breeding may, after a while, tell both on the mental, and physical organization. And it would also equally tell on those organizations if people ever so far estranged in blood and locality—but equally afflicted with scrofulous consumption, or other hereditary, or chronic, or nervous, or mental diseases—were to intermarry and produce children. It is a law of our physical nature that "the iniquities of the fathers (parents) are visited (upon, and even) unto the third and fourth generation." And so it is with everything, brute as well as human; and probably from cases under such circumstances are Mr. Clay's illustrations quoted. To close, on this branch of the subject, I quote from the *Southern Cultivator*, an extract advertising to the proposed Georgia law named by Mr. Clay.

"What is the blood of any person or animal, but a part of the food eaten within the previous 48, or perchance, 60 hours? The blood of no father or mother was ever the same for six months in succession; and, therefore, no two children born at different times, and the offspring of the same parents, were ever so much alike as some twins have been. CAIN and ABEL differed widely in their dispositions; although neither could have had either the vices or virtues of a long line of progenitors. The different members of many a family in our own time evince as wide a discrepancy of character, whose parental blood came from the same living hearts. One child is very conscientious through life; while a brother or sister displays a lamentable want of moral rectitude. If the same blood in the popular, not scientific, use of language, produces such variant results, why talk about the blood of cousins necessarily leading to bad consequences, if mingled by intermarriage? The notion is but little short of a downright absurdity. How can the marriage of a sound man

and sound woman impair the blood of either, whether they are brother and sister, first cousins, or fourth cousins? The thing is impossible, unless one gratuitously assumes vices which it were just as logical to assume in the married life of any other parties. And if the marriage of near kindred can not impair the blood of parents, how is it possible for healthy parental blood to weaken the constitutional powers of its offspring? This, too, is equally impossible. Parents communicate deformity and imbecility to their children, not because they may happen to be cousins, or their grandmothers were such, but from errors, defects and maladies which have an entirely different origin. If it were proper to use the *argumentum ad hominem*, and were the writer addressing a legislative body, it would be easy to name some of the blood-corrupting poisons which eat like a cancer into the constitutions of more than one generation. It is not necessary to our argument that we point out any of the pregnant follies, vices and crimes which civilization breeds with extreme fecundity, to show that the occasional marriage of first cousins is not one of the number. Pure blood is never contaminated by what it parts with; but by what it receives that is impure."

Mr. Clay's remarks on, 3—*experience*; and, 4—*special proof*, require no further remark from me, as no point of argument is particularly concerned. But, in regard to the "Stud-Book" and horses, I have somewhat to say, and will ask the privilege to do so in your next paper, as I have already trespassed too much in the present number.

For the American Agriculturist.

Hints on Preparing "Garden Truck" and other Country Produce for Market... II.

BY B. STEVENS—WASHINGTON MARKET, N. Y.

SMALL FRUITS.—In sending fruits to market, it is highly important that they should be so packed and carried that they will not only look well when started, and keep fresh while on the way, but also that they should have an inviting appearance when offered for sale. The price obtained is governed quite as much by the looks and style of putting up, as by the quality of the article itself. The neatness of the containing basket, box, or package, is of the first moment. A pint of strawberries, for example, will sell much higher, and far more readily, if in a neat, clean, tastefully made basket, than if in an old, crumpled, soiled one. Uniform size and quality is necessary. A few large berries among a lot of smaller, poorer ones, makes the latter show bad by contrast. Many persons think it best to "top off" a package well, putting the poorer qualities at the bottom. This species of deception generally reacts upon the seller, and more is lost than gained by it. Few persons will buy any article without looking into it, and the discovery of the slightest inferiority below the surface has a decided depreciating effect upon the whole—more than is really deserved. A better plan is to sort out the different sizes and qualities into different baskets or packages. A second class quality placed by itself, will usually sell better than the same article slightly covered or mingled with a better grade. Many of the old growers have a specific reputation in this respect, and their produce has a fixed value, and when the reputation is good, they enjoy a decided advantage over others in the ready sale they find.

It is also very necessary that in the small fruits the packages should be uniform in size, and hold a specific quantity—as a half pint, pint, or quart, so that the retailer may know precisely how much he is selling. In strawberries, particularly, the baskets should hold not less than a pint, though the usual size is about half a pint.

Strawberries should be picked dry, and free from sand, in baskets holding a full pint; and for very superior fruit, white bowls, holding a pint, are used. The bowls should be in chests or crates, on shelves—the shelves having holes to receive the bottom of the bowl. The chest should have plenty of holes bored in it, so as to admit plenty of air. The baskets are usually packed in barrels bored full of holes, and having rope handles at the sides, to carry by, and cover-

ed with muslin; or slatted crates are used, with a close cover to keep the dirt from falling on top of them. It is best to let the berries stand in the shade a short time after picking, to cool off the sun heat; as when packed warm they are apt to heat, mold and sour. It is also well, when practicable, to cover each basket with a walnut or chesnut leaf, as they will sell more readily, and at an advanced price, for shipping or sending out of the city. The early berries from the South usually come in square quart boxes, packed in chests, having plenty of air. Be sure to mark each package plainly, also the number of boxes or baskets inside.

Raspberries of the common sorts are generally picked in small baskets, such as are used for strawberries; but the better kinds are picked in a fancy basket, holding one-half pint, also in pint bowls, and packed in chests giving plenty of air. Be careful to keep cool and dry; reject all soft and bruised berries, and don't be afraid of filling the baskets, as they settle in getting to market.

Blackberries should be picked after the dew is off and they are perfectly dry. Be sure to not put in any bruised or soft berries. Pick them directly in quart boxes in the field, so as to handle them as little as possible. Set them in the shade to cool the sun heat off, then pack in crates holding eighteen or twenty-four boxes, as that is as many as can be handled easy. Fasten the lid down tight to keep the dust from the top layer. Be sure to fill the boxes full, so that they will not shake down any, and let them have plenty of air at the sides of the crates. They are also packed in quart baskets having a cover to them, like the old-fashioned dinner-basket of the school children. This is the very best package for blackberries, as, after years of experience, they are still found to keep the fruit better than any other plan; probably from the free ventilation, as fruit of all kinds requires plenty of air to absorb the moisture and keep it cool; but the baskets being unhandy to pack, the quart boxes are generally used, and if made with holes in them, so as to ventilate well, they will keep the fruit equally well. The packages should be handled with care, as the fruit bruises or rubs the points off, which sets it bleeding, and it then soon sours. Blackberries are also sent to market in bulk, in boxes holding from a peck to a bushel, but it is a bad practice. The loss of price, when sent in this way, would soon pay for small packages.

Whortleberries are sent to market in boxes holding about a half bushel. These are made long and shallow, so as not to bruise the fruit more than possible. The boxes are not covered, so that they have plenty of air. They will hardly pay the expense of using quart boxes, but baskets holding two or four quarts can be used to good advantage. Keep dry and cool, and handle carefully, being sure to throw out all bruised berries.

Grapes should be gathered with care, trimming out all the green or decayed berries, and when perfectly dry and cool, packed in tight boxes about the size of starch boxes. Put them in layers, with a sheet of paper between each layer. Keep out all broken bunches, and pack them by themselves as seconds. Fill the boxes full, so that the cover will press on them, to keep them from moving about in handling. Be sure that the top layer is a fair sample of the whole box. Let the weight of the fruit, and also of the box, be marked on the boxes.

Gooseberries are picked green, and sent to market in barrels and baskets. All that is necessary is to pick them clean and throw out all unsound berries.

Currants are picked ripe. Care should be taken

to handle gently, so as not to mash the fruit. Keep the bunches whole, and see that they are perfectly dry and free from leaves. Put them in shallow baskets or boxes. They are sold by weight.

Apples and Pears should be picked carefully by hand, and after thoroughly sweating, put carefully in clean barrels. Fill them so that the head will press hard on the fruit, that they may not shake in the least in handling. Sort them out so as to put up none but sound, fair fruit, for market. If the head flattens the upper layer so much the better, as the rest will come out the fairer. Let the barrels be tight if the fruit is perfectly ripe. Do not put any straw or hay in the barrels, and let the top layers be a sample of the whole barrel.

Provide the Hay-Caps.

This valuable improvement still fails to receive that attention which it deserves. We have already written so much upon the subject that we need offer little more now. We will say, however, that we are more than ever convinced of the great advantages resulting from their use. They may be cheaply and quickly made of coarse cotton, $1\frac{1}{2}$ to 2 yards square, roughly hemmed, and provided with loops at each corner for stakes, or stones sewed into the corners, as weights to keep them from blowing off. A quantity of these always at hand to throw over cocks of uncured or cured hay, when a storm comes up, will not unfrequently save more than their cost on a single occasion, while they may be used for many years—not only to cover hay, but grain left in the field. A full description of them, with illustrations, was given last July (see vol. 17, p. 207). We have usually advised farmers to make them at home, but many will not take even the slight trouble required for this, and we would call the attention of such to the advertisements in our last, and also in the present number. As they are made on a large scale, and sold reasonably, and as some manufacturers prepare the cloth so as to be water-proof, and still open enough to allow moisture to evaporate through them, we think it may be quite as economical to purchase those ready manufactured, as to make them at home—that is, where they are on sale at a convenient point. But, however procured, let us again urge all hay makers, who have not done so, to make the experiment of using a few hay-caps this year. They will not be abandoned after one trial.

Not too Late to Plant Corn.

The prospect of better prices for farm produce should lead every one to get in all the crops possible the present year. It is by no means too late to plant corn during the first week in June. Some good farmers purposely delay their principal corn planting until the last of May or the first of June. Their experience has taught them that, as a general rule, corn planted June 1st is as forward by the end of July, as that planted May 10th. They say, that when planted late, the ground is warm and quickly germinates the seed, and starts it at once into vigorous growth, and that it will soon overtake and go ahead of the early planted. They also argue that one hoeing is saved by the late working of the soil previous to planting, as a large number of weeds which have started, are then killed. This year it is safe to act upon this theory, where there is a spare plot that may be used. The quick growing varieties, like the King Philip, are most desirable for late planting, and for filling up vacant spots in that already above the ground. Of course, it will not do to mix in the different varieties where pure seed is to be gathered.

Transplanting Ruta-Bagas—Large Yield.

Wm. J. Pettee, Salisbury, Ct., writes that he has tried sowing ruta-baga turnips on a bed thickly, about the 10th of June, and when the plants are of proper size, transplanting them to the open field. He is pleased with the plan, as it saves the first weeding, and also the thinning.—Taking into account the labor involved in resetting, and the check they will receive in the process, it would not pay to do this upon a large scale, we suspect. The seed is cheap and may be sown freely, and the plants may then be easily thinned with a hoe after they have become well established. The plan would work better with plants having a shorter tap-root. Mr. Pettee says he gathered 900 bushels of ruta-bagas from an acre. The best quarter acre produced 325 bushels, or at the rate of 1,300 bushels to the full acre.

Lima Beans—Substitute for Poles.

We have this year constructed a sort of trellis for our Lima beans which is cheap, and ornamental withal. Two beds or ridges, 25 inches wide and 4½ feet apart, are rounded up for planting the beans upon. The beans are put in drills upon the summit of these ridges. A patch about two feet wide is left between the ridges, and a narrow path, one foot wide, is left upon the outside. The center of each ridge is some 5 inches higher than the path, so that no water will stand upon them to rot the beans, which were planted as early as May 3d. (They came up May 9th.)

For the trellis, a row of posts 8 feet above the surface and 2 feet in the ground, is set up in the center of each ridge at intervals of 6½ feet—the posts in the two rows standing in pairs opposite to each other. These were of course set before forming the ridges of earth and planting the beans. The posts are sawn stuff, 2½ by 3½ inches. Round timber would have been used, but was not as convenient to be got, or as cheap as the scantling or wall-pieces that cost but 8 cents apiece. Along the outside of the two rows of posts three horizontal strips (1 by 3 inches) are nailed on—one at the top, one 12 inches from the ground, and the other midway between the top and bottom strip. These strips are directly over the rows of beans which, by the way, are stuck down in double tiers or drills upon each ridge. Cross pieces between each pair of posts, are nailed across the top, to strengthen the structure. Small nails are driven into the string pieces at intervals of 5 or 6 inches, to which strong strings are tied. Each string is fastened to a nail in the bottom strip on one side, then carried to a nail in the middle piece and round it, then to the top piece, then over to the opposite side and down to the lower strip, and tied to a nail there. It is wound around a nail in each string piece. The running vines will be trained up these strings, and if desired, conducted across the top to form an arbor, though we intend to pinch them off when they reach the upper string piece on either side, lest the foliage if across the top should shut out the sun-light.

The wood work is to be whitewashed, to give it a neat appearance. The structure will last for several years, and need not be taken down annually. We have found Lima beans to do well on the same ground from year to year.

The expense of this arrangement is trifling. Our two rows measure together some 50 feet; which would have required say 16 poles, giving much less running space for vines. The posts and string pieces cost about one dollar and a half. With the aid of two men, we cut out the pieces, dug the holes, put up the frames, made the ridges,

and planted the beans in about three and-a-half hours. It resembles a grape-arbor with the exception of an arch over-head, and when covered with a mass of vines will not be un-ornamental. The beans will doubtless yield better when thus spread out on a large surface, than if trained thickly around straight poles set 3 or 4 feet apart.

Those who have already planted in hills, but have not yet procured poles, may easily set up a few posts, nail on string pieces, and stretch perpendicular strings for the vines to run upon. The more space a given amount of vines can be spread over, the better will they be exposed to sun and air, and the more perfect and abundant will be the product.

Questions about Potato Rot.

To the Editor of the American Agriculturist:

For several years past my potato crop has been almost an entire failure. I had planted the same seed year after year, and on old ground. By reading, studying, and attending discussions, I was induced to try a different course. I procured my seed 15 or 20 miles distant, and planted without manure on dry pasture land, broken up in the Spring. When the potatoes were in bloom, I sowed broadcast on the tops three or four bushels of ashes, with one-tenth part lime, per acre, repeating it in six or eight days. This was done during damp weather. Another piece was old mowing ground broken up, with strawy manure applied in different ways. Both produced good crops, while many pieces in the neighborhood were nearly destroyed by rot.

We know the potato vine is a great absorber of moisture. When other leaves are wet, those of the potato are often dry. Now does not this absorbing power, which the potato possesses in so great a degree, cause a super-abundance of water at the bulb in wet, foggy weather, stopping the healthy growth of the tuber; and does not the action of the heat which frequently follows, produce the same effect that moisture and heat would on any other vegetable matter, viz., cause it to rot? Do not strong manures, by increasing the growth of the tops, extend the surface of the leaves, and consequently the absorbing power, and thereby increase the liability to rot?

On the other hand, if straw or coarse manures are used, which do not rot quick enough to force a rapid growth of tops, and increase the absorbing power beyond a proper equilibrium; or if old pastures are used, and the animal and vegetable manures do not exceed the mineral, does not the bulb keep pace with the top in growth, and need all the moisture absorbed by the tops in order to produce a healthy potato? Will not ashes and lime, sown on the leaves, make an alkali which, being absorbed by the leaves and carried to the roots, neutralizes or prevents the acetous fermentation, which otherwise would take place and destroy the potato?

OREN O. STEWART.

Lincoln Co., Me., 1859.

Hunting Wild Bees.

We recently gave a chapter on this subject, (Vol. XVII, p. 363.) H. L. Cousin, Oneida Co., N. Y., sends to the *American Agriculturist* a description of a contrivance for catching the bees. It is simply a small box about three inches long, two inches wide, and two inches deep, open at the bottom. A partition, parallel with the bottom, divides the box into two parts. The top of the box is covered with a small square of glass. In the partition is an opening about an inch square, with a slide over it extending to the outside of the box, so that the hole in the partition may be

opened or closed at pleasure. The bee-hunter provides himself with a basket containing the box, a few pieces of dry comb, and a vial of honey and water, mixed in equal quantities.

Having found a bee at work upon a flower, the box is placed over him, and the bottom covered with the hand, when the bee will pass up through the opening in the partition toward the light, to escape. The slide is then closed over the opening, and the bee is fairly caught. A little of the honey in the vial is then poured upon a piece of comb, on a board or dish, and the box set over it, with one edge raised a little to admit the light. Then if the slide be drawn and the top darkened with the hand the bee will descend, and coming in contact with the tempting morsel, will go straight to work to load up, for he generally has an eye to business, however he may be situated. The box may now be gently raised, and his flight observed. After catching and liberating several bees from the same locality, one line of direction is soon found. Then a number more may be captured and carried to some distance before freeing them, by whom another line is formed, crossing the first, or rather running to it. It is then only necessary to observe a few objects in each line of flight, to find where the two lines will meet, which will of course be at the point where the common store-house of the bees is located.

Keeping New Swarms of Bees in the Hives.

To the Editor of the American Agriculturist

In your *Basket*, S. P. Campbell, of Minnesota, asks how to prevent swarms leaving after being hived. As experience has been my sole teacher in the management of bees, and as young swarms never leave me, I cheerfully communicate my method of managing them, trusting that he and others may profit thereby. When a young swarm leaves the old hive, pay strict attention to the queen. She may be recognized by her appearance; she is much like the yellow wasp, being longer than the common bee, and not as clumsy as the drone. Her wings are comparatively short, and not calculated to sustain her very long in the air. If she flies off with the swarm, all is right, but if you find her on the plot before the stand, you may know that her wings are defective, or that she is too feeble to accompany the young swarm. Therefore take her up gently in your hand, and retain her till you see the young swarm make an effort to settle. Some time may elapse before they make this effort, as the bees know that their queen is not with them, and they will fly in every direction in search of her. As soon, therefore, as they congregate around any object, place the queen there, and they will at once settle around her—unless the bulk of the swarm may have strayed off, and then they are apt to return to the old hive. Should this be the case, use a little tobacco smoke, and dispel such as may have clustered around the queen; then take her and return her to the old stand, when the others will soon follow. But if the swarm settles to the queen, there is then full time to prepare the hive. See to it, that it is clean, and free from all offensive odors. Wash the inside slightly with water sweetened with honey or molasses. Then proceed to the place where you expect to hive the young swarm, place on the ground a white sheet, put down the bottom board, on that put two narrow strips of thin plank, and on these your hive. Have the end of the sheet where you expect to shake your bees on, extend about three or four feet. As soon as you have them ready, shake them to the mouth of the hive, and take the end of the sheet and throw it over the top of

the hive. This at once *quiets* them, and they are apparently *conquered*. Take your sheet down and brush them with light peach or apple switches, with leaves on, and they will march into the hive in fine procession. Such as have clustered around the sides, brush down to the mouth of the hive; and do not stop brushing them till you have them all in. This I generally effect in ten or twelve minutes. Then at once remove the hive to the bee-house, and in a very short time you will see them busy at work. If a young swarm is permitted to remain at the place where hived, for a few hours, guard the hive well against the rays of the Summer's sun, as the bees will not remain in the hive when it is warmed by the sun. The hive should soon be set in its permanent place, or the bees learn a course of flying in quest of food, which they must change when located in the bee-house. For, if a hive is moved but twenty feet from its first locality, you will find many working bees, on their return, fly to the spot from whence they had been moved; and these poor stragglers, if not able to recognize their hive on the stand, are certain to return to the old one.

My theory is, that a young swarm never leaves the old hive without a queen, and if the swarm returns to the old hive, it is because their queen is not with them, and unless you can find the queen, that swarm is lost to you for at least nine days. Then, this swarm may come again; but it will be increased in numbers, and may have more than one queen, as it then assumes the character of a second swarm.

J. BOKER.

Forsyth Co., N. C.

Tim Bunker at Home again.

MR. EDITOR:

I have been gone from home four whole months, and I do declare if they wan't the longest months I ever experienced. I haven't seen anything of your paper, and not much of any other as to that matter, since I went off, and I've pretty much lost the run of things, up here in Connecticut, and out in your village. It was curis how it happened, so curis that I haven't got over my astonishment at the thought of my journey yet. I couldn't hardly believe I'd started, until I got home. I should have said, a year ago, that it would have taken six yoke of cattle, and a horse on ahead, to have drawn Tim Bunker out west or down south. But lo! and behold! I've been on a journey of five thousand miles, and got back alive. I've seen the elephant from trunk to tail, and the next time I go on any such fool's errand you see I shall stay at home. They call it L. E. Fant Esq., down south and think it is a joke. I did not find it any joke at all.

The way it happened, you see, was this. Wife and I have always stayed at home—hardly ever venturing further away from Hookertown, than down to your village, when I had cattle to sell, or something of that sort. We were a very quiet sort of people, and never had much company outside of our own circle of friends, until I got to writing for your paper, when the tide seemed to turn, and lots of strangers began to call on us. After that account of the wedding by your reporter, they come so plenty, that my wife said she should have to go down to Shadtown, to live with Sally, in order to get rid of company. You see every body that comes to Hookertown—and a good many come here in Summer—has to look up Tim Bunker, and stare at him, jest as if he was a lion. They would go by, looking at our house as if it was haunted, or some man had committed murder there. One fellow come tip here in the Fall

with a looking glass on three legs, and said he was going to take a picture of the house for some New-York paper. I was called on before breakfast and after breakfast, in the field, and in the barn, early and late, until I was troubled to get time to attend to my own business. Now this would have been very pleasant to a politician, or a man born to fame, but it was mighty uncomfortable to plain country folks like Mrs. Bunker and I. There is nothing a man pays so dear for, as for his honors. If he is wise, he will add another petition to the Lord's prayer, "deliver us from evil and from fame." I don't know as this is quite orthodox, but wife and I have made up our minds on this point, and are too old to change.

Well, things come to such a pass that Mrs. Bunker declared she would not stand it any longer. She laid down her gold bowed spectacles, the same that Josiah gave her, one evening last December, and says she "Timothy our house is getting to be a tavern, and I should like to go off and have a rest this Winter."

"Well," says I, "where will you go?"

"Any where to get out of Hookertown, where you are not known."

"Very good, pack up the trunks, and we will be off down south next week."

I had no idea of her going, but I see in a day or two that she was in earnest, and when a Connecticut woman has made up her mind, you know there is no use in talking. So we started on our trip, and to make certain of getting into a place quiet enough for Mrs. Bunker, we fetched up on a cotton plantation. There was not any other house in sight, and no neighbors within a mile. It was mighty woodsy and lonesome, mail once a week, and preaching once in two weeks, and about eight miles off. Thinks I to myself "if Mrs. Bunker wants a quiet time I guess nothing will hinder her here." It was mighty nice for a week or two, and she was delighted with the woods and flowers, the dogs and pigs, the poultry and negroes. The third week she began to miss the papers, and to inquire about the mails. The fourth week she wondered why they did not have preaching every Sunday. The fifth week, she began to talk about John and Sally. By the time two months were up, she spoke of Hookertown, very peaceably. At the close of the third month it was a very handsome place, indeed the prettiest village she had seen in all her journeyings. Now that she has got home, she declares it is the center of the world, and the tip-top of creation. That is rather a strong statement, but as I never dispute a woman's word, I shall have to let it go.

Now I can't tell you anything about what I see down south, cause you see, folks that have not been there would not believe me, it is so unlike anything at home. But I jest want to say, that if any body or his wife gets restless and uneasy, that is the country to go to, to get cured up. It is better than Perry Davis's Pain Killer, or the Springs; I haven't seen so contented a woman in ten years as Mrs. Bunker, since she got home. She says she never will say another word about company as long as she lives; and as to her neighbors, they are the handsomest people in the country.

I guess she is about right. It does New-England people good to go away from home once in a while, jest to see how the rest of the world live. They generally come home wiser and better. Every thing has gone on well in Hookertown, since I have been gone, just as well, for aught I can see, as if I had been at home. There are some people, who think the world will come to an end when they die. Let them step out of the traces a few months, and then come back and see how smoothly the world spins on without

them, and they will be cured of that folly.

There is only one thing that shocks me on coming home, and that is the blue window shutters of my neighbor Seth Twiggs. What upon earth possessed the man to have 'em painted that color, I dont see. Shutters, indigo blue, in this nineteenth century, and in Hookertown, too! It is an atrocity. Just as if there was not blue enough in the heavens without a man's putting patches of it on to his house. I asked Seth about this, the first thing when I got home. Says he, "Tim Bunker, you don't know every thing, tho' I admit you are a knowing man. You see I smoke a good deal, and blue is the handsomest color in the universe. It is blue inside very often, and I thought I might as well have it blue out of doors to keep the balance." I had nothing to say and have only to add

Yours to command,

TIMOTHY BUNKER, Esq.

Hookertown, May 1st, 1859.

Try Experiments.

We should consider it an important point gained if we could induce each of our readers, or any considerable number of them, to carefully conduct a single experiment in cultivation, during the present season, taking for a subject any plant or plants that may be most convenient. A small plot of ground, or even a pot of earth may suffice for this purpose. The observation of the effects of a fertilizer, or of the growth of a plant under different circumstances, may assist in determining questions of the greatest possible interest to tillers of the soil. After all that has been said and written about the growth of plants, how little do we really *know* upon the subject. Scarcely two writers are entirely agreed as to even the first principles concerned in vegetation. Though scientific knowledge may be necessary to draw correct conclusions from facts observed in vegetable growth, still, facts alone can give a sure foundation for scientific knowledge; and the very humblest mind can observe and collect facts.

To illustrate what may be done. Suppose you plant two seeds of the same variety, as nearly alike as you can select, in separate boxes, each containing the same kind and weight of soil. Cultivate and treat them in exactly the same manner. They will no doubt very nearly resemble each other, but they will also present well marked points of difference. One will have longer stems, or more leaves, or greater abundance of flowers than the other. Why? Science at present can not answer the question. She may conjecture, but until the careful experiments of perhaps hundreds of observers have been collated, there can be no certainty in the matter. So with many questions of very great importance, additional facts alone can lead to right conclusions and practice.

It is true that each year's cultivation of the soil is adding to our store of facts, but how many more might be obtained if each cultivator would devote a small portion of his leisure to the study of some one plant, with a view to find out by experiment all that could be known about it; or better still, perhaps, to be able to give a satisfactory answer to some one question concerning its habits or its needs.

But leaving out of the question the importance of such experiments to the advancement of knowledge, there is an inexhaustible fund of rational enjoyment in conducting experiments, especially such as we are now speaking of. Let a person watch the development of a single plant from day to day, with a view to ascertain facts,

and each successive stage of its progress will afford new delight. The variety of subjects for investigation is almost endless. Probably the greatest interest would be taken in endeavoring to ascertain for yourself the truth in regard to some point as to which you have doubts. For example, it is stated that there is a considerable difference in the time of maturity of potatoes raised from eyes taken from different parts of the same tuber. Can you tell about this? With a few potatoes, a rod of ground, and a few memoranda of the time of planting, blossoming and ripening, you can in one or two seasons gain much useful information. The value of different manures may be tested, new varieties of seed tried, new fruits originated by hybridizing—in short, the taste and circumstances of each individual will suggest topics for experiments sufficient to employ his leisure pleasantly and profitably. Try it.

The "Better Times" Close at Hand.

At no time during two years past, has there been so encouraging prospects, as now, for the farmers of the Northern and Middle States and Territories. The Southern States, or those cultivating cotton, have enjoyed a large degree of prosperity for a year or more, but just now the scale appears to be slightly turned against them, though not so much so, we think, as is predicted by some journals. Should England, by far the largest consumer of American cotton, become deeply involved in the European contest, the price of cotton must fall off somewhat, at least. It will be wise, then, for cotton growers to give more attention to corn and other cereals.

The two principal direct causes of distress, among northern farmers, have been: *first*, poor crops; and *second*, the low market value, of the diminished products, resulting from the depressed financial condition of this country, and of foreign countries as well.

In regard to the first cause of distress named, there are many reasons for predicting good if not very abundant harvests this year, one of which is the present flourishing state of the growing crops throughout the entire country. Every day brings us glowing accounts of the excellent condition of the Winter and early Spring grains: and no better weather than we have had during a month past could have been asked for, had it been "got up to order." The warm, dry weather of the last of April and the first of May, greatly facilitated planting and sowing, and at the same time pushed ahead the growing crops very rapidly. Then, when the ground had just begun to get too dry, a bountiful rain fell. Now (May 16) the weather is fine and warm again, and we can almost "see things grow." (Of some fifty varieties of field and garden seeds we hurried into the ground the first week in May, nearly everything is already up and growing splendidly.)

There is also one noteworthy fact standing out in all the history of the past, which is very encouraging now; there has seldom, if ever, been a succession of poor crops for three consecutive years. We have not often had very poor crops even two years together. Therefore, as we have just had one poor year, following another not quite so bad, but still bad enough—taking the whole country together—it is safe to conclude that the present year will be at least a good one.

As respects the second cause of distress, the low prices, the country is rapidly recovering its wonted activity in all departments of business, and the demand for farm products for home consumption is much greater than for sometime past. The large emigration to the gold fields has diminished the number of persons engaged in ag-

riculture, since of the vast multitude who have gone to "Pike's Peak," and elsewhere in search of gold, by far the largest proportion was drafted from the Western farming regions. This will alone render more remunerative the labors of those who have been wise enough to dig for gold on their own farms.

The most prominent feature in the prospective prices of farm produce is, however, the probable foreign demand, which for a year past has been very trifling. To-day we have news from Europe indicating that war between at least two of the leading powers, France and Austria, has actually commenced, and other continental countries are and will be involved. More than a million of able-bodied men are already in arms. These regular armies are not gathered there as here, by voluntary enlistment from among an unsuccessful, or shiftless class who "join the army" because they can not, or will not, support themselves by active labor; but in most of Europe, they are drafted from the able bodied peasantry. This of course must diminish the number of producers, to say nothing of the cessation of agriculture in the country ravaged by the march of the contending armies—countries that in time of peace produce as much as several of our States taken together. The inevitable result must be a considerable increase in the demand for breadstuffs and salted meats from this country. This is a sad thought—one offering poor consolation—that we are to gain by the sufferings of our brethren in Europe, but we are now only recording financial facts.

In connection with this subject of foreign demand for breadstuffs, we may refer to one topic in what is termed "Political Economy" (we might say "financial economy"), which may not be fully understood or appreciated by all of our readers. Suppose, for illustration, that in a certain isolated neighborhood the annual product of hay is one thousand tons, and that the usual price is, say, \$10 per ton. Suppose now, that the product in any year should fall to nine hundred and seventy-five tons. There would then be a deficiency of twenty-five tons which could not well be obtained elsewhere. The result would be a brisk demand for hay, until the deficiency should be made up. Purchasers would bid, one over the other, in their eagerness to get their needed supply, and quite likely prices would go up to \$15 per ton, or more. But suppose there should be an excess of twenty-five tons. There would then be an activity among the sellers, each trying to get rid of his surplus, with few buyers. Prices would then sink as much below the standard price, perhaps, as they would go above, in the other case.

To apply the illustration. During the past year we have in this country produced a little more of breadstuffs, for example, than has been needed for home use. The sellers have exceeded the buyers, and prices have fallen very low. Had a foreign demand taken off this small surplus, and a trifle more, the buyers would have exceeded the sellers, and the competition would have increased the marketable value of *all* the saleable breadstuffs. Such will probably be the result the coming year. Europe will take all our surplus, and some more, and prices will go upward. No matter though our aggregate yield of wheat and corn be a billion and-a-half bushels, if the excess over actual home demand be but a hundred thousand bushels, and Europe calls upon us for one hundred and fifty thousand bushels, the competition to get the small deficit of fifty thousand bushels will have the tendency to raise the marketable value of the whole billion and-a-half bushels. But enough on this point.—We say again,

as we said last month, the signs of the times are abundantly encouraging. Let farmers take heart, and let there be increased thought, and care, and attention, given to secure the best possible cultivation of the land. Every additional bushel of grain grown, or saved, will find a market at better prices than for some time past. It is not yet too late to plant corn for a ripened crop. Corn may also be planted thickly, and millet, oats, sugar cane, etc., sown, for soiling. Buckwheat may be sown to furnish a home substitute for the more saleable grains which can thus be spared for the market. Turnips will save grass in feeding stock next Winter, and this crop will be in ample season a month yet.

The present state of the market, and a reference to the transactions for a month past, will be found in the Review of the Market.

"Soiling."

This term is used to denote the practice of confining animals to stalls or yards, during Summer, and feeding them with green food, cut daily, such as corn, millet, oats, sugar cane, clover, lucerne, turnips, etc. This mode of feeding is extensively practiced in England, but though frequently recommended, has not met with much favor here. The advantages claimed are: that food is thus consumed with less waste; that there is a great increase in the amount of good manure saved; that the animals are less exposed to the heat of the sun, and to flies and other insects; that a larger proportion of the food goes to the production of fat, muscles, and milk, when the animals are kept quiet; that much less fencing is required; and, as the greatest consideration, the same quantity of land will furnish food for two or three times as many animals, when the quicker growing and larger plants, like corn, etc., are raised, instead of the common pasture grasses. These considerations are sufficient to recommend a more general adoption of the practice in some parts of the country—as near the larger cities, where land is very valuable. But under ordinary circumstances the additional cost of gathering the food daily, would exceed the rental of additional pasture land enough to keep the animals. The manure saved by soiling is not clear gain, for this is distributed over the land in grazing. The advantages of keeping animals quiet, are probably lost in vigor, for the exercise taken in grazing is hardly enough to waste much flesh, while it must promote good health.

But every farmer should practice "soiling" to a limited degree at one season of the year, viz., in mid-summer, when the usual grasses are parched and dried. Under the best circumstances there are always a few weeks of comparatively poor pasturage in July or August, and just then every enterprising, thoughtful farmer will have a bountiful supply of some succulent crop ready to cut and feed out in daily rations, in the stable or fields. Not only will the better yield of milk, and the greater vigor of working animals amply repay the cost at once, but all kinds of stock thus provided for at the most trying season, will go into fall pasturage in good condition, and be ready to lay in fat and flesh against the winter.

In "fly-time" it will be found advantageous to shut up cattle and horses in dark stalls, during that part of the day when insects are most troublesome, and let cut green food take the place of pasturage.

Corn or Chinese sugar cane planted in drills, and millet, oats, etc., sown broadcast, are among the best crops for soiling. If planted or sown in small plots at intervals of four to eight days, a longer succession of green food will be secured.



S U M M E R .

(Original Design for the American Agriculturist.)

From brightening fields of ether, now disclosed,
Child of the Sun, refulgent SUMMER comes,
In pride of youth, and felt through Nature's depth.
He comes attended by the sultry hours,
And ever fanning breezes, on his way;
While from his ardent look, retiring Spring
Averts her blushing face, and to his hot
Domain leaves the all smiling earth and skies.

Hence let me hasten to the cooling shade,
Where scarce a sunbeam wanders through the leaves;
And on the dark-green grass now lie at large,
Beside the brink of haunted stream, that rolls
Along its rocky channel.

Nearly thus did Thompson greet the English Summer. . . . With the aid of an artist's pencil we have attempted to present, above, a picture emblematical of the season upon which we now enter. The scene here portrayed is characteristic of American rural life, and, with slight variations in the grouping, it is one which may be witnessed during the coming weeks upon ten thousand American farms. The sun is high in the heavens, and pours down his scorching rays. The father, wearied with bending over the corn rows for three or four hours since breakfast, has retired to a shaded grass-plot, laid down his hoe, and is partaking of the "lunch" brought from the distant dwelling by his daughters. The younger one has in the meanwhile gathered a bouquet of wild flowers, which she has entwined for her papa, and he rewards her affection with an approving smile. The elder one is calling to the man and boy, plowing out the corn, to come and join in the repast, but they seem intent on "finishing out their row" before stopping. The brother has gone to the water-fall to quench his thirst, followed by the dog, who has perhaps been as active as his master, chasing the squirrels, and digging out the corn-stealing chip-munks, or gophers.

With what renewed vigor and energy will the laborer resume his work, after a few brief moments of such relaxation and refreshment as he is now enjoying. We, and very many of our readers, know by experience how this is. And just here comes up a practical suggestion. We

labor too incessantly—too long at a time—as a general thing. The bow that is long bent, soon loses its elasticity. So it is with human muscles. A man may carry a hundred pounds all day, if he frequently cast it off for but a moment at a time, to allow the strained muscles to relax; while his strength would be entirely exhausted in an hour, if he attempted to carry his load without once laying it down. So it is with one bending over the corn-rows, or at the scythe, from breakfast to dinner, with no cessation. We have particularly noticed the practice of two large farmers, both of whom labor with their "hands" in the field. The one keeps both himself, and his men and boys, pressing at their work every moment. He reasons that every minute's delay is so much time lost, multiplied by the number of men at work. The other will stop at the end of a long row, or after cutting a long swath of grass, and perhaps tell a story or get off a joke which puts all in good humor. Then all fall again to work with a will, as if in haste to get to the next resting place. The number of two minute respites thus taken, frequently amounts to a dozen or more during a single half day, yet it is plain to any one looking on, that he accomplishes at least ten per cent more than the first named farmer, who seems to think the slightest cessation from steady labor as so much time absolutely lost. There are times when, in the hurry and excitement of getting in a crop before a storm, for example, a man may keep himself and all about him in active exertion for hours, yet as a general rule, no one should keep his muscles upon a constant strain, in the same position, longer than twenty or thirty minutes at a time. However short the relaxation, let there be one at very brief intervals, and much more will be accomplished during an entire day, than by the contrary course.

And here let us add, also, that the same rule holds good in the treatment of working animals. Some will start a team on the road, drawing a heavy burden to market, and keep up a steady

"jog" for half a dozen miles at a time. But the truth is, the team will draw the load much easier, get over the ground quicker, and be far less worn in the operation, if stopped and backed in the harness for a minute or two as often as once in every fifteen or twenty minutes. The same thing is true in regard to speed. An animal may be driven at the very top of his speed for a few minutes, and no harm will be likely to result; but let that speed be kept up for ten or fifteen minutes, the same set of muscles being in constant action to their utmost stretch, and the chances are, that complete exhaustion will follow, succeeded by permanent injury. Let this fact be ever kept in mind, then, that rest must follow activity at short intervals, if the highest degree of efficiency would be maintained, in man or beast.

About Hired Men.

We have had frequent occasion to notice the different "luck," as they called it, which employers have had with their hired help. We knew a Mr. P. who was for ever in hot water with his men. They couldn't be trusted out of sight. They would idle away half their time, slight their work, abuse the horses and cattle, and waste more than their help was worth—such was the frequent complaint of them and to them. On the other hand they unhesitatingly declared, that there never was such a driving, miserly, surly, and altogether contemptible man as their employer. From early summer until their employment ceased in the fall, there seemed to be a continual strife between them; each aggravating the other, each apparently studying to find the limit of human endurance, and it sometimes happened that actual violence was resorted to, a hand-to-hand encounter with one or more of the men, followed by prosecutions, law-suits, and costs to pay.

But neighbor G. never appeared to have such difficulty. He frequently hired the same men

employed by Mr. P. the previous season, yet all went smoothly. His work was done in season, and well done; although they were often away from his observation, there was no disposition shown to take advantage of his absence, and he used to speak with pleasure of his "excellent hands." Yet he never was heard to scold, but often to praise, and if fault was found, the offender alone knew of it. This we apprehend was one secret of his success. He remembered that they were men as well as "help"—and as a man he knew that appreciation is one of the highest stimulants to exertion, and that fault-finding in presence of others, sours the feelings and disheartens from effort. The man who takes as much pains to find points to commend in those in his employ, as he does to discover their defects, will soon see the benefit, in cheerful readiness to work, and endeavors to please. Scolding never did any good. A man will listen if you tell him his faults, however plainly, if it be done with mildness and in private.

Too many men pay but little regard to the physical comfort of their "help." They are kept on the coarsest, sometimes the meanest fare. They are sent to sleep two or three in a room, often in the unfinished chamber of an outbuilding, and on beds fit only to do penance upon. Then too, the men are not only kept at their work "from early dawn 'til set of sun," but one furrow more must be turned, or one swath more mowed after the full time of a day's work is completed. Men are easily affected by what touches physical feelings. Generous fare—it need not be expensive—comfortable lodging rooms, ample noon rests, and prompt "turning out" from the field at night, will be more than repaid by the cheerful spirit and "working with a will," which will be given in return.

Another cause of much difficulty will be found in the whiskey jug or cider pitcher carried into the field. Although the men may for a time seem to do more by the use of this extra steam, experience has many times proved that strictly temperate men can better endure the severe labors of farm life; while seven-eighths of the quarrels and collisions, which disgrace too many, otherwise peaceful, communities, originate from the use of alcoholic stimulants.

A great point will be gained, if hired men can be brought to feel an interest in the success of the farm. Sometimes a good way to procure this, would be the offer of extra pay, provided the amount of the crops could be brought beyond the average yield, so that each would feel a personal interest in doing his work well. It would take very little calculation to show that several bushels per acre might be added to the product of each field, by better plowing and more careful cultivation of the growing corn or other crops. The subject is certainly worthy of careful consideration, for most farmers are, to quite an extent, dependent upon the labor of others.

A Farmer with "No time to Read."

One of the many friendly subscribers who have kindly interested themselves in extending the circulation of the *Agriculturist*, gives us what he calls a text for a brief article, viz.: "All our last year's subscribers, a club of twenty, have renewed, except one, who said 'he could not find time to read.' And this man, too, has a family of children growing up around him, whom he is educating to the business of farming."

Our improvement upon this text shall be brief. *Firstly*. There are labor saving implements enough noticed each year in any respectable

agricultural paper, to save much more than time sufficient to read not only a paper of this description, but several books besides. *Secondly*. If the boys are educated to farming by the process of being kept at it early and late, with no interest in their business awakened by the facts and thoughts on the subject, which such a journal presents, some of these days, that man will want help on the farm, and his boys will be "seeking their fortune" in some more inviting calling. *Thirdly*. The men who get their living by their wits as they call it, or who in plain words live by swindling the ignorant, will most likely find at least one good customer in that neighborhood, and make him pay for his ignorance ten times as much as he refused to expend for information. *Fourthly*. "Where there's a will there's a way" and a man can find time for anything which he considers of sufficient importance; and also "when there's a want there's a way," and there can be but little doubt that "can't find time" is merely another, perhaps easier way to say "haven't the disposition."

For the American Agriculturist. Egg-Hatching Machines.

The wonderful and interesting phenomenon of producing animal life by machinery, presents to the student of nature, a sight truly curious and beautiful. Many interesting facts have been discovered in the process of hatching by artificial means, and have been described with great minuteness. By means of the Eccaleobion and hatching ovens, the chick is baked, as it were, into life.

How astonishing that in the substance of an egg there should be the vital principle of an animated being! that all the parts of an animal's body should be concealed in it, and require nothing but heat to unfold and quicken them; that the whole formation of the chicken should be so constant and regular, that the same changes will take place in the generality of eggs at exactly the same time; that the chicken, the moment it is hatched, is heavier than the egg was before. But even these are not all the wonders in the formation of the bird from the egg; there are others altogether hidden from our observations and of which, from our very limited faculties, we must ever remain ignorant.

The first notices we have of hatching chickens artificially without the aid of hens, are to be found in the works of Aristotle and Pliny. The latter mentions that the Roman Empress, Livia "hatched an egg by carrying it about in her warm bosom and this probably gave origin to the device of late, to lay eggs in some warm place, and to make a gentle fire underneath of small straw or light chaff, to give a kind of moderate heat; but evermore the eggs must be turned by man or woman's hand both night and day, and so at the same time they looked for chickens and had them."

In the hatching of chickens, as in most other things, nature is the best guide. The hen if left to herself, finds some dry, warm, sandy hedge or bank, in which to deposit her eggs, forming her nest of moss, leaves, or dry grass. In this way the warmth is retained in the nest for the few moments she devotes to her hurried and scanty meal. In imitating nature, in a degree, or approaching that end, we would advise the adoption of putting in the bottom of the nest a sufficient quantity of dry sand and grass, moss, or cut straw.

For hatching, and to have the eggs productive, they must be fresh, and must not be exposed to noxious effluvia or moisture. Those intended for

incubation should always be gathered with more care than if merely to be employed for aliment.

The art of hatching by artificial means, has been extensively practiced in Egypt and China, from an unknown period of time. In the former place immense numbers of eggs are hatched by heat in ovens or "mammels;" and officers are appointed by government to superintend the process, and receive a part of the produce as pay.

As there is no prospect of any of our countrymen entering into the business of the Egyptian method, we will not detain the reader by a description of these ovens; others and less expensive have been adopted. The French have made many experiments, particularly the celebrated naturalist and French philosopher, M. Reaumur, who made a number under the immediate attention of the French King, and published the results in a treatise of five hundred pages with plates. It states the requisite heat to be about 90° F.

Oliver de Serres, describes a little portable oven of iron or copper, in which eggs were arranged and surrounded with feathers, and covered with soft cushions, heat having been communicated by means of four lamps, but he says that it was more curious than useful.

The incubation of chickens by hot water, is said to be the invention of M. Bonnemain, of Paris. His apparatus consisted of a boiler; a box for hatching the eggs; a cage or coop for rearing the chickens; tubes for circulating the hot water passing through the hatching box.

A method somewhat similar to Bonnemain's, called "Eccaleobion," was put in operation a few years since, in London, and exhibited at 25 cents each person. It was a large oblong box or case, divided into eight parts, each one used for hatching the eggs. The bottom of these boxes was lined with cloth, and covered with eggs, lying at a little distance from each other. There was a dish of water in each compartment to preserve a proper degree of temperature and moisture to the air in the divisions.

In 1844, we visited an egg-hatching machine, exhibited in full operation, in the city of New-York, bringing out the little chickens with all the punctuality of an old hen. This machine was an English invention, probably the one just noticed. In outward appearance, it forms an oblong box about five feet in length, three feet in width, and four and a-half feet high, divided into eight compartments, with narrow glazed doors. The floors of these apartments are covered with flannel on which the eggs were laid. The divisions inside are of tin, probably hollow, to contain hot water or steam which is generated in a small cylinder standing in the center of the machine, and extending through the top of the box, and having a small pipe to conduct off the smoke. It was heated with charcoal. In one end we noticed a thermometer partly immersed in the water, by which the temperature could be noted.

The apparatus latterly employed for the purpose of incubation has been described under the name of "Eccaleobion," "Potolokian," and "Hydro-Incubator." The former was an ingenious contrivance for hatching chickens by heated air. According to Mr. Bucknell, the English inventor and proprietor of this machine, which some years ago attracted great attention, the Eccaleobion possessed a perfect and absolute command over temperature from 300° Fahrenheit to that of cold water, so that any substance submitted to its influence was uniformly acted upon over its whole surface, at any required intermediate degree within the above range, and such heat was maintained unaltered without trouble or difficulty, for any period.

During the exhibition of this instrument it was

stated that 30,000 to 40,000 chickens were brought into existence by a single machine, which was constructed to contain 2,000 eggs at one time.

The "Potolokian," was a similar contrivance for hatching chickens by means of heated air, established a few years since, on a large scale, in the City of Brooklyn, N. Y., by Mr. E. Bayer, who succeeded well, as far as the production of chickens was concerned, in the process of hatching, at a loss of not over 20 to 25 per cent of the eggs. The best temperature for the process he found to be 102° Fahrenheit.

Mr. Cantelo, a few years since, established near London, what he termed a "Model Poultry Farm." By means of the "Hydro-Incubator," in this institution, numbers of chickens, guinea fowls and ducks have been raised by artificial heat most ingeniously applied by *top-contact*, so as to produce the same effect on the vitalized germ, as the heat of the incubating hen. This heat has been proved by Mr. Cantelo to be as high as 106° Fahrenheit.

The "Hydro-Incubator" itself is very simple; it consists of a tank or cistern of water, heated by a peculiar stove, the heat of which is shown by the thermometer. The water is heated to 109° Fahrenheit, and flows over a surface of vulcanized caoutchouc, the lower surface of which is in contact with a tray or nest of eggs and maintains a heat of 106°. The tray is open at the sides, the bottom is made of wire gauze, lined with cotton cloth, and is raised or lowered by wedges; thus merely presenting a small surface to the bottom of the caoutchouc, which represents the breast of the parent fowl, and thus only a *top-contact* heat is communicated to the egg.

It has hitherto been believed that the blood-heat of the feathered tribe was the same as that of the human race, viz., 98°. Mr. Cantelo asserts that it is 106°, and he considers this an overlooked fact.

The system of hatching eggs artificially, and an improvement on the old plans, has recently received a new impulse from the exertions of Mr. Manasi, of London, who has labored hard to dispel the notion that "*top-contact*," as with the natural hen-mother, was absolutely essential for successful hatching by artificial agents. It is this view which has so long retarded the progress of this curious art, as great complication of mechanical details was necessary under such a system, in addition to the constant attendance of a watcher to keep the temperature at the right point. This was the great objection to all previously constructed hatching machines. As it requires much less attendance during the process of incubation, it may go three days without attention; formerly it could be left only three hours.

This machine is a very simple contrivance, and can consequently be constructed at about one-fourth of the expense formerly required. The necessary heat is obtained from a naphtha lamp without a wick, which is so arranged that it may be left to itself for two or three days together, and yet the process of hatching goes on with due regularity and certainty.

It consists of a water-tight platform or tray of metal, with a corrugated bottom, and filled with warm water at such a heat as will keep a layer of sand thereon up to a temperature of 104° F. This sand-layer holds the eggs, which are screened by a glass-cover. The sand which is of the silver kind, is a quarter of an inch deep, and the eggs when deposited in it, are covered with a blanket, another blanket being employed to envelop the whole of the glass-frame. Under the tray is placed a mass of chopped hay, mixed with sand, this being changed daily. The heating lamp, which is on a novel principle, is placed

with its flame about three inches from the bottom of the boiler or water-holder. When the proper heat has been obtained, the eggs, with their opposite sides marked, are placed in the sand, and left for twenty-four hours, after which time they are reversed, to expose the other side.

A hatching machine has been invented in France by M. Vallee, which is described as follows: A drum, inclosing a warming cylinder, forms the basis of his system. He introduces warm air into the drum where the eggs are deposited, and by circular openings gives access to currents of cold air. It is by a careful, rational combination of warm and cold air that he obtains that dampish temperature in which lies the secret of incubation, from which results the development of the embryo in the egg. By this instrument artificial hatching is necessarily carried on in every state of the atmosphere, and at all seasons. But after the chicken is hatched, a mother must be provided. M. Vallee's ingenuity thus provides for this emergency: A lamb-skin is fastened by one extremity to a board, and made to open at the other end like a pair of bellows. This affords a cover for the little ones, and keeps them as warm as would a veritable mother hen. The degree of heat required is from 104° to 106° F.

Some ten or twelve years ago, a machine for the purpose of hatching chickens by artificial heat, was put in operation by L. G. Hoffman, Albany, and so far as the hatching of chickens was concerned, proved equal to the task, producing from 70 to 75 chickens from every hundred eggs.

It is made of tin, with the hatching chamber surrounded with water, and kept at a proper temperature by means of a lamp. On the left of the machine is a small conical-shaped cistern of water, connected at top and bottom with the water surrounding the egg-chamber; by means of these connections at top and bottom, a constant circulation of the water is kept up. The cistern of water is heated by a lamp, the heat passing up into a cone reaching nearly to the top.

Beautiful as a brood of chickens always are, under any circumstances, the interest excited is greatly increased by the artificial system of hatching and rearing. It seems by no means so difficult to succeed in hatching chickens artificially as to rear them after they are hatched. Notwithstanding the ease and certainty with which birds can be hatched with artificial heat, for some reason the machines do not seem to be regarded with favor.

C. N. BEMENT.

Large Turkeys—Weight of Common Kinds.

To the Editor of the American Agriculturist:

I give you the weight of a two-year gobbler turkey, which, on account of his partially losing his sight, I had fattened and strangled during the Winter. He was of the "large" breed, of which I obtained a cock and two hens from my friend John Giles, of Windham Co., Ct., three years ago:

Live weight at the time of killing. 28½ lbs.
Marketable when dressed (undrawn). 25½ lbs.
Inside loose fat around the heart and liver. 2 lbs.
Dressed weight of flesh, including do. 22½ lbs.

A few weeks before, we killed a yearling gobbler, a cross of the large breed with a common turkey hen, which weighed, when dressed, (entrails undrawn,) 22½ lbs. The live weight of the sire of these birds, when in full flesh, was 33 lbs., as Mr. Giles assured me, though he did not weigh over 30 lbs. when I got him, or in ordinary condition. The two hens I procured of Mr. G. weighed alive a trifle over 18 lbs. each, when I first received them, at 18 months old.

The usual weight of a fair sized gobbler of the

common breed, at 2½ years old, full grown of course, is about 20 lbs.; that of a hen 12 lbs.—say 17 lbs., and 10 lbs. marketable (undrawn) weight. My turkeys are silver grey and brown bronze in color—the latter very showy and beautiful in plumage. I saw a few days since, in one of the agricultural papers, a statement by W. H. Noble, Bridgeport, Ct., that he has a gobbler weighing 35 pounds, and hens 19½ lbs. Will he please to name the colors of those turkeys? If he can really beat mine in weight and plumage, I should like to know the fact.

L. F. ALLEN.

Black Rock, N. Y.

P. S. To save inquiries for "seed," and avoid the appearance of ax-grinding, I wish to add that I have no turkeys to sell.

INSTINCT OF THE HEN.—A friend has just related the following amusing incident which occurred in his fowl-house in Brooklyn, showing more perceptive power in the hen than she is usually credited with. The family, when boiling eggs for breakfast found a cracked one in the water, which upon examination proved to be bad. It was taken to use for a nest egg, but a hen when about going to lay, spied it, and at once with feet and bill threw it out upon the floor, and proceeded to demolish it by pecking and scratching, not eating it however. She then resumed her place and after very carefully looking over a new egg, placed in the nest, proceeded to business and was soon cackling over her success.

Horse Racing at Fairs.

We were glad to notice the following resolution, introduced and passed by the Ohio State Board of Agriculture, at its last Annual Meeting, viz.:

Resolved, That paying premiums by Agricultural Societies, for speed of horses, simply as such, without due reference to qualifications for purposes of general utility, is a perversion of the original design.

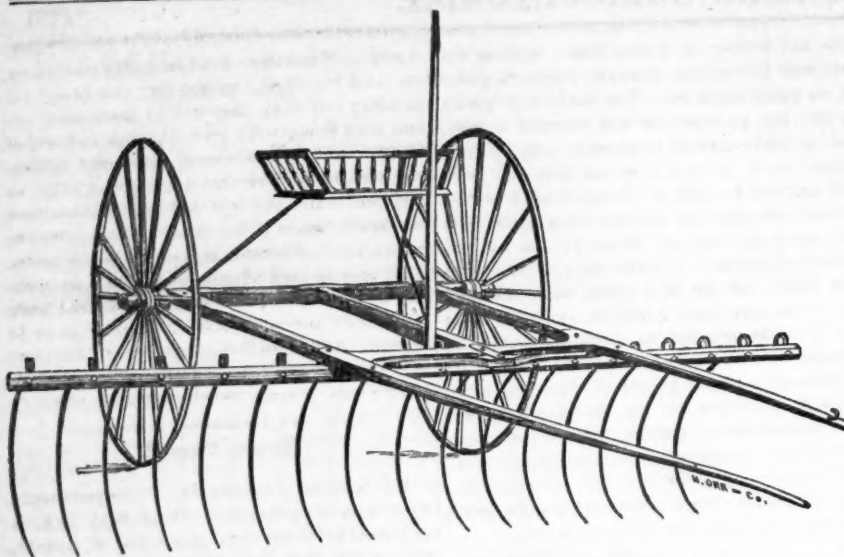
Resolved, That such trials of speed have a great tendency to divert attention from everything else; and what seem to be their inseparable accompaniments, are defrauding and demoralizing; and, therefore, we will not offer such premiums, and will discourage their being offered by County and District Societies."

This is a move in the right direction, and is the more gratifying from having been introduced and warmly advocated by a breeder of fast horses, who, rather than encourage such exhibitions—turning our Fairs into horse-races, would sacrifice his entire stable.

Cut Feed for Stock.

Much has been written on this subject: the argument in favor of cutting up feed for stock may be stated in a few words. If a farmer has no fodder to be disposed of, except fine, "merchantable hay," there will be little need of cutting it. But most persons have cornstalks, and hay and straw a little damaged, which if fed out unprepared would be much wasted. Now let this be run through a straw-cutter, then mixed with a little meal and moistened, and it will be a vastly more palatable dish, little or none will be wasted, and what is eaten will be well digested.

Our good housewives hash up odds and ends of meat, to save them, and to make them more acceptable to their families: why should not the same principle of economy rule in the farmer's barn? Besides, if cornstalks are not cut up, they find their way into the manure-heap in a rough state, they are very slow to decay, and are troublesome in the shoveling of the manure—whereas, if they are cut, these objections are obviated.



PARSON AND HOUSTON'S WIRE-TOOTH WHEEL HORSERAKE.

We have examined a comparatively new horse-rake, which is represented by the above engraving. From what we can judge, without seeing it in actual work, and from the favorable reports we have from farmers who used it last season, we are inclined to consider it one of the best modifications of this most useful and convenient implement. An examination of the cut will give a pretty clear idea of its structure and peculiarities. The wheels, shafts, and seat, are arranged like an ordinary sulky, and may be used as such, independently of the rake, which is readily detached. The teeth are of wire, the upper ends being coiled to give them greater elasticity. When passing over rough or stony ground, any of the teeth meeting an obstruction will bend backwards, and pass over without stoppage or breaking. The special improvement claimed for this rake is not fully shown in the engraving. It is two half cog-wheels, one upon the rake cross-piece, and the other upon the lower end of the handle or lever which is seen standing in front of the seat. By means of this, the driver can at any instant, by pulling back the lever, roll the tooth-shaft back, and thus raise the teeth, allowing them to pass over the windrow. The long lever renders this operation quite easy. In the samples we have seen, the wheels, shafts, etc., are well made. The present price is some \$30 we believe.

For the American Agriculturist.

Securing Good Seed, Wheat, Rye, etc.

Although care is frequently exercised in selecting good specimens of corn for seed; yet for oats, rye and wheat, the grain for the next year's sowing is usually taken from the bin, without regard to the part of the field on which it may have grown, or to its having matured early or late. Too much dependence is also placed on the fanning mill and grain screen to separate cockle, chaff, and other foul seeds; hence year after year they show their unwelcome heads in the fields. I would advise first to note well at this season the spots in the growing field where the finest grain is ripening, and then let these be cared for particularly, with reference to saving the product for seed the coming year. From these places every weed should be carefully pulled, and at harvest time the ripened sheaves stored by themselves apart from the general crop. Indeed I think it would pay well to cultivate ex-

pressly for seed, the best part of the field, where from more favorable exposure or better quality of soil, the grain will mature earlier and heavier. If this were generally done, the standard of excellence in the cereals would in a few years be greatly improved.

A. F. W.

For the American Agriculturist.

Enlarging a Farm without Buying Land.

If a man does not know how much land he actually owns, and gets no benefit out of that part with which he is unacquainted, and then is informed that he has more, and is told how to use it, why is not this equivalent to the purchase of more acres? Farmers are often heard to exclaim: "Oh that I were rich enough to buy a little more land, then I could fatten more cattle and sheep, and I could carry more grain to market!" Now, to such men, at least to some of them, we beg leave to say, your farms are already larger than you suppose. You seem to think that your ownership extends only six inches deep into the earth; but this is a misapprehension. It is not very strange, however, since all the former owners of the soil had the same idea, and the Indians from whom your ancestors bought or stole the land, were content with only the surface, just enough to hunt upon and to grub a few roots out of. But this is all a mistake, as you will see on reflection. Examine the title deeds to your land and see if there is any limit to your rights in a downward direction. You will not find any; we know you won't.

Now, therefore, do not fear to go at once and take possession of the rest of your farm. It is virgin soil, covered over with only a few inches of partly worn land; and it will return you fine crops if you will only lay it open to the sun and air, or mix it with the soil you have long cultivated. Perhaps it will not be wise for you to try to use it all the first year: use a little moderation in entering upon your new property, for your own sake and for the farm's sake. [In connection with the advice here given, it may be well for the reader to turn back to page 71 (March No.) and study what is said about plowing deep and plowing shallow.—Ed.] Here is what some writer has said on the subject—not strictly correct perhaps, but highly suggestive: "At the present time, the average crop of wheat per acre in Great Britain, on a soil cultivated for centuries, is about double that produced on the comparatively new soil of Ohio. Why is this? Simply because the

leading British farmers are educated men, and apply their work wisely. They pay back to the earth what they borrow from her; they endeavor by every means in their power to enrich their ground, and in return it enriches them. If American farmers, instead of laboring to double the number of their acres, would endeavor to double their crops, they would find it a saving of time and toil, and an increase of profit. . . . Many men never think of digging ten inches into the soil, unless they have dreamed about a crock of gold hid in the earth; but if they would set about the work of digging in earnest, every man would find his crock of gold without the aid of dreams or divination."

We once heard of some remarkable strawberries raised in a neighboring town, and called the "Washington Excelsior" strawberry. Rumor said that the leaves were large, vividly green all Summer, the fruit large and abundant for a long time, and not diminished by the severest drouths. The plants were sold at half a dollar apiece, and were considered cheap at that price. Attracted by these wonderful stories of the new fruit, we went to see it and learn all about it. The plants were indeed beautiful, and the fruit very fine. But our eyes were opened when Mr. Smith, the owner, told us frankly, that the plants were some common sort, the name of which he had forgotten, but that they were grown on a bed in the corner of his garden which was made ground, for at least six feet deep. Why did not this account for the persistent verdure of the foliage and the size and abundance of the fruit? Yet, the superior beauty of the plants and berries had attracted much attention in the neighborhood and seemed to call for a high-sounding name; and so Mr. Smith dubbed them the Washington Excelsior. Plainly, this man's strawberry bed was enlarged without fencing in more land.

Are Agricultural and Horticultural Papers Useful?

Some persons decline or hesitate to subscribe for agricultural or horticultural journals, because, as they say, they have a book or two on farming or gardening on their shelves, and suppose that nothing more is needed. And yet, perhaps these books are many years old, and when newly-made, they may have been nothing more than meagre compilations from books and papers older still. Useful, undoubtedly, such books are, but they are no proper substitute for well-conducted journals of the present time. The latter glean from whole libraries whatever is true and useful, and adapted to the wants of the present day. There is also real progress made every year in husbandry and gardening, and those papers give full reports of such progress. If one wishes to keep posted up to the times, he must read these papers, for the books, like old maps, geographies and almanacs, soon become obsolete.

Ill Luck in Growing Corn.

Not seldom do we hear farmers complain that their corn crop is a failure, it having been injured by hot and dry weather. Injured by the very weather which a kind Providence designed for its benefit! On inquiry, it will generally be found that the corn-fields of such complainers are wet, undrained, and cold: they are so wet in Spring that they cannot be worked until quite late in the season, and then a long, dry spell sets in, which checks the growth of the corn and makes it feeble and puny all the rest of the Summer. Meanwhile, wide-awake farmers, who had previously drained their lands and manured them thoroughly

are rejoicing in the beauty of their corn-fields. When dry weather comes, they bid it welcome; it is just what the "King of the Cereals" wants. They keep their hoes bright, which keeps the ground moist, and keeps the corn growing.

Cost of a Bushel of Corn.

We have often urged the utility of keeping an exact account of the expense attending the raising of every crop, that a correct judgment may be had of the resulting profits or losses.

A correspondent of the *American Agriculturist*, F. E. H., West Bridgewater, Mass., having pursued this plan, gives the following figures showing how much per bushel his corn cost him. The amount cultivated was just *one acre*, the soil is described as a hard gravelly loam.

Plowing and Furrowing.....	\$2.62
5 Cords manure	20.00
Drawing manure, and manuring in hill.....	5.60
1 Bushel potatoes and 7 quarts of seed.....	1.25
Planting.....	1.92
Cultivating and hoeing first time.....	2.87
Cultivating and hoeing second time.....	2.50
Pulling weeds.....	.25
Interest on land.....	12.00
	\$49.01

From this amount is deducted value of Pumpkins raised with the corn.....\$2.50
10 Bushels Potatoes.....5.00
Also say $\frac{1}{2}$ value of manure left in the soil. .500

\$12.50

Leaving \$36.51 as the cost of the 36 bushels, or in even numbers \$1 per bushel—certainly not a very profitable investment. The account thus kept, would probably deter from a second trial, unless indeed, some unusual influence of season or otherwise, prevented the yield of an average crop, and attention would be turned to something that promised more remunerative results. Let every man at the close of this year have such statements before him, and he can then more easily decide what crops to raise, or whether to "sell out" entirely.

How to Hoe Corn.

To the Editor of the *American Agriculturist*:

When I was a boy, and first went into the field to hoe corn, I was quite puzzled to know what my father meant, when he directed us to be sure and "hoe where the corn wasn't." But after following him a few days, and noticing the pains he took to have all the ground *between* the hills well stirred, as well as the weeds cut up, and particularly when I saw how careful he was, not to disturb the ground deeply very near the young plants, I understood his meaning. In a long acquaintance with corn I have observed enough to make me think he was right. The weeds must be cut up root and branch to have good corn, that's certain, and the ground must be kept loose enough to let the heat get in, and the moisture pass up from below, and to allow the spreading roots to make their way easily through the soil in their search for good picking. But I've seen a good many slash away with the hoe close around the stalk, when every cut there, if two inches below the surface, must have broken quite a number of the growing roots. It certainly can not be of much use to feed corn well, if you then go to work and cut off its mouths, for the roots are mouths to the plant. So I always cultivate lightly where the roots have extended, which is about the length that the stalk has reached above the ground, and when the corn is up breast high, I wouldn't let a man go through the field with a plow, if he'd pay wages for doing it and find himself.

I do not believe in hilling corn; making the field look like a crop of young flag-staffs planted on small pinnacles. The stalk has grown up into the air where it was intended to stay, and it isn't natural to partially bury it alive. People do it, to prop it up, so that the wind will not level it. But if it be let alone, it will do its own propping, by sending forth extra roots just above the surface, which go out and anchor it all around. I have seen a field that was hilled, laid flat by a storm, while the next one to it, that grew naturally, stood up after the blow, as straight as a militia captain on training-day. When corn is hilled, it will try to send out a second growth of supporting roots, but neither the first nor the second growth will then become strong enough to be of much use. I therefore try to leave my ground nearly level, and thus also save the roots the trouble of diving down again, to get below the gullies which are sometimes left after the first plowing.

JONATHAN.

Smoky Chimneys.

Chimneys on the one story wing of houses, are often caused to smoke by the wind blowing over the top of the higher part of the house, and down into them. A multitude of contrivances have been devised to remedy this evil. The most common is a cap of stone or iron laid upon two courses of bricks at the four corners of the chimney, thus: as shown in fig. 1. This answers



Fig. 1.



Fig. 2.

pretty well when the wind blows down steadily from over the house, or from any direction except towards the house. Then by striking against the side of the upright part of the house, it is broken into a thousand eddies, driving this way and that, up and down, under the chimney cap and down the flue, and filling the house with smoke. Several devices are in vogue, for meeting this difficulty. One, highly recommended, is called Mott's Ventilator, of which fig. 2 is a sketch. We have seen a modification of this in a cheaper form, which can be made by any worker in tin and sheet iron. Get an upright piece of stove-pipe, two feet long and eight or ten inches diameter, and make it square at the bottom so as to fit the flue. Fasten this to the top of the offending chimney, by brick-work or by a cap of sheet-iron, the first is preferable. On the top of this upright piece, fasten a horizontal section of the same diameter, but flaring a little at each end. It will look somewhat like figure 3. We have known this simple contrivance to work well on chimneys where several fashionable and costly ventilators had failed to afford any benefit.



Fig. 3.

Uses of Coal Ashes.

In answer to some inquiries on this subject, we would say that their value as a manure is not very great. The chemists will tell us that they contain only a little potash, much less than wood-ashes, and that they are composed chiefly of earthy materials, with some sulphate of lime or

gypsum. Experience will best decide where they are most beneficial: hurtful they can hardly be. In heavy clay soils, they will by mechanical action, tend to make the ground porous and easy of tillage. And for this reason, some good cultivators recommend their free use in potato fields, as they render the soil light and dry, and so favor the healthfulness of the tuber. Thirty, fifty, or even a hundred bushels an acre are not too much. They may be used advantageously as a top-dressing to grass-lands; also as a mulch to fruit trees in Summer, and a protection to their roots in Winter. A Flemish Beauty pear tree that we saw last Summer, was loaded down with fruit, from having been liberally mulched in this way.

How to Succeed.

Mr. Williams is a lucky dog. He prospers in everything he undertakes. If he buys land, it somehow turns out to be good; and if he sells, he gets a good bargain. Every part of his farm bears the impress of its owner. His buildings and fences are in good repair. His land is well tilled, his crops show their keeping, and so do his horses, oxen, cows and sheep. There are unmistakable signs of prosperity all about him.

Mr. Brown don't succeed so well. He is a poor judge of land, and buys and sells, generally to a disadvantage. He works hard, works early and late, is very economical, denies himself and his family not only luxuries but even comforts, and yet he don't succeed. His fences rot before he is able to renew them, his buildings look rusty, his crops are meagre, and his domestic animals—why, they are of a piece with the rest.

Now, what makes the difference in these two cases? Undoubtedly, these men were differently constituted. But in addition to this, the one has cultivated his talents, while the other has suffered his to run to waste. Here, as elsewhere, the successful man is the *thinking* man. He gets instruction from everything, because his eyes are open and his mind awake. When, for example, he plants a tree, he studies its wants, observes its habits, and learns all that can well be learned about tree-planting; and hence he succeeds in it. If he proposes to try some new mode of tillage, he does not go at it blind fold. He reads on the subject; and, what is more, reflects upon it, and ascertains the why and wherefore; he talks with intelligent neighbors about it, and having thoroughly made up his mind, proceeds steadily to the accomplishment of his object. Is it sub-soiling? Down goes the long plow-share into the virgin mold, with a will, regardless of the doubts and winks of his thriftless neighbors. Is it some new mode of making and applying manures, or the use of some new implement? it matters not what it may be, he does it because he has good and sufficient reasons for it. He succeeds, as a matter of course, where success is possible.

It is just the opposite with the unsuccessful man. He won't trouble himself to find out the reason of the most common processes. He don't observe, and therefore learns but little from his daily experience. He follows on doggedly in the beaten track, satisfied if he earns his daily bread.

To succeed, one must reflect, as well as work. A man's body will not thrive, however much food he may take into his stomach, unless he digests it. So, a man with his eyes may see many things, but if he does not reflect upon them, if he does not deduce principles from facts, his mind will not grow, his character will not improve, and in the practical affairs of life he will not succeed. Labor and thought must go together. Observation, reflection and industry combine to form the successful man.

What are the best Conductors in a Sugar Grove?

To the Editor of the American Agriculturist:

I have on my farm a hill rising some 30 feet or more high, not abrupt, but too steep for passing up and down comfortably with a burden. The elevation and depression and face of the ground are such, that by the use of conductors, the sap from between 400 and 500 maple trees on it, could be conveyed to one point. The trees are very tall, thrifty and healthy; many of them are large, and have never been tapped. I, and perhaps many others similarly situated, would like some information respecting the conveying of the sap in conductors. What is the cheapest, safest and best mode for preparing the conductors? How will these conductors be affected by the frost, and what effect will evaporation have? I wish to get the sugar bush ready for next Spring, and want to be sure I am right before I go ahead on any plan. Who will respond from practical experience and observation? E.

Good Roads.

A good road is one of the surest marks of civilization. In the days of Rome's greatest glory, her influence was everywhere seen in the noble roads laid out through all parts of her dominions. So now in Continental Europe, and above all in England, good roads keep pace with civilization. The savage don't care for roads: he jumps, climbs, threads his way with his tribe "Indian-file," regardless of convenience, safety or pleasure. One of the greatest drawbacks to life in a new country is its poor roads. We see no reason why every community should not feel it their duty, their interest, and their pride, to make the best possible highways and to keep them in good repair. Would it not save them much time in passing to and fro; much wear and tear of harness, wagons, and carriages; much straining of horses, much impatience; would it not promote their own respectability, and enhance the value of their real estate? As canals and rail-roads benefit the portion of a State through which they run, so do good roads affect the lands in their neighborhood.

In order to make a good road, the thing of first importance is to give it the right shape for shedding water. If water lies on the track in warm weather, it is sure to make it soft, and then, of course, to produce ruts, and mud-holes, which grow worse and worse with the use of the road. If it lies there in Winter, ice is formed from the top to the foundation, and when it breaks up in the Spring, the road becomes like a quaking bog. It is plain that the track should be made of convex shape, sloping from the middle gently to the sides. This track should be not less than twenty four feet wide, with a gutter on each side, about one-foot deep.

And yet, the very common practice of plowing the gutters and sides of the road, every year, and scraping the top-soil into the middle of the track in order "to turnpike it," is quite objectionable. That soft, mucky soil, enriched as it is by the wash of the road-track, is much more suitable for fertilizing gardens or mixing in the compost heap, than for making solid turnpikes. It would be economy for the neighboring farmers and gardeners to cart off this good soil, and replace it with as much gravel or hard subsoil. After the road has been put into the right shape, the track may well have a layer of small cobble-stones or pounded rocks for a foundation, and this should be covered with gravel. In order to make sure of carrying off all water from the foundation of the

track, it is sometimes recommended to dig a drain lengthwise of the road, under the middle of the track, and place large drain-pipe at the bottom. The ditch may then be filled up with small cobble-stones. Such a road, we think, would always be dry and firm.

One great defect in many roads is the imperfect manner in which sluice-ways are made across the track. If made of good plank, they will last a few years, but stone well laid, are much better. Their foundation should be proof against frost. We need not say that to have a good road, it should be taken care of, after it is made. Whenever ruts or holes begin to appear, they should at once be filled with gravel, or pounded stone, or hard soil.

Making Fence-Posts Durable.

All posts will rot, sooner or later, and no method will put off the period of decay very long. Yet something can be done. Charring the lower end before setting it, is not labor lost, although it must be remembered that the charring process often cracks the timber, and so allows the moisture to penetrate the post and thus induce decay. Boring small holes near the ground, and filling them with salt once a year, is sometimes recommended. Perhaps the salt thus introduced, and diffused through the wood, may retard decay, but we can not, from theory or observation, vouch for such results. Coating the lower end and six inches above the ground with coal-gas tar answers a good purpose, and is, we think, the cheapest and most effectual.

A correspondent suggests soaking the lower ends in a solution of blue vitriol, (sulphate of copper)—all that will dissolve in water—and says that this has been used with success on shingles, spouts, bean-poles, and wood in other forms exposed to the weather. We do not understand the chemical action of such a fluid, but it may be good for fence-posts for aught we know.

Written for the American Agriculturist.—Prize Articles.

Farm Fencing.....V.

Next to the stone wall, the best and cheapest enclosures in a well-wooded country, are the post-and-rail fence, and the zig-zag, worm or Virginia rail fences, and in the adoption of either of these, the farmer must be governed somewhat by his own taste and means of expenditure, but usually more by the supply of the right kinds of timber at command, and the price at which it may be obtained.

Fence posts may be either split with the ax or sawed in a mill. The kind of timber and the straightness of its grain, will determine the method of making them, where both modes are available. The most durable woods for these—and they should be of durable timber for setting in the ground—are, in the Northern States, red cedar, yellow locust, white oak, chestnut, red beach, white cedar, and pine. To these may be added, in the Western States, black walnut and over-cup, or swamp white oak; and in the Southern States, the cypress, and pitch or yellow pine, with perhaps, another wood or two of local celebrity for such purposes. The proper shape for a good sawed fence post is square, at the bottom, and tapering on one side to a thickness of not exceeding two inches at the top end; the width of the post at the top being the same as the width of the sides at the bottom.

In this shape the front of the post shows a full width of face to the rail when inserted in it, or to the board when nailed upon it, yet has a lighter

top, better enabling it to stand upright, as well as saving much material in cutting at the mill.

The proper size for a fence post is eight feet long and six to eight inches square at the butt, depending upon the weight, height and strength of the fence attached to it above ground. For a solid, lasting farm fence, we would have the posts not less than seven inches square at the butt, nor should they exceed eight inches, supposing the fence to be, at the top rail, five feet high. In a heavy, clayey soil, seven inches will do; in a light loam or gravel, eight inches is better. They should stand quite two-and-a-half feet in the ground—three feet is better—both to give them a firm footing against leaning by action of heavy winds and heaving out by the frosts. As to the manner of setting the posts, whether the holes be dug with a post augur or spade, it matters but little. In stony soils the spade *must* be used, and a spade hole is better than an augur hole, as it gives more room to fasten the post firmly in while setting. At all events, the posts must be set *firmly*, in order to maintain a solid and lasting fence.

We have spoken of *durable* timber for posts; yet much in durability will depend on the proper preparation of the posts before setting them in the ground. The season of cutting the timber in the woods may be a question with some. Yet, the best season for cutting timber, as affecting its durability, is an unsettled question, and after years of investigation, the writer has been unable to decide which is the most preferable: whether Winter, Spring, Summer or Autumn. We think more depends on the treatment of the wood after it is cut, and before it is set in the ground, than on the season in which it is cut. That it should be *thoroughly seasoned* before setting, there can be no question. Then, charring the foot and sides of the post so as to effectually close the pores of the wood to external influences, is a great advantage. Or, the same effect may perhaps be given by a coat of gas or common tar, or thick oil paint. It is said, also, that a deposit of a gill of fine salt plugged into an augur hole in the post below ground, is a sure preserver against rot. In fact, there are abundant recipes for preserving fence posts under ground; but many of them are mere nostrums, while others are too expensive and troublesome to be of any use. But we know that thorough seasoning is effective. We know, also, that charring and tar are effective in their preserving influences; and a green post, fresh from the woods, or the saw-mill, we would never set. They will not last half the time of a well-seasoned one.

We have seen much discussion of the superior durability of posts planted top-end down, from the fact that the capillary attraction of the pores of the wood when standing butt-end down, draws the moisture from the ground up through the whole length of the wood, thereby causing decay much sooner than if turned top-end down, in which way the capillary attraction can not act. This may be measurably true with *green* timber, but when the wood is thoroughly seasoned, the pores become contracted, and incapable of action to any extent; but when, in addition, the whole surface of the wood in contact with the ground, is charred, or coated with tar, or paint, the "capillary attraction" must be quite, or next to nothing. Thus prepared, we would pay no attention to which end of the growing wood is set in the ground.

We have spoken thus far only of sawed posts. We are aware that a majority of our farm fences are needed where it is either quite expensive or impossible to get sawed posts at all; therefore, they must be split. The shape and goodness of

the post will depend much on the skill of the hand that splits them, which is so common a labor that it need not be described. The "cuts," or logs for the posts should be cut with a cross-cut saw, instead of chopped with an ax, to make them all of a length. When split out, each post should be dressed free from sap-wood and splinters, so as to have as fair and smooth a surface as possible, for shedding the rains. If the posts are intended for rails, the holes to receive them should be two to two-and-a-half inches wide, and six inches long, and such distance apart as may be desirable to exclude whatever animals are to be fenced out. Of that the builder must judge. The rail holes may be made with a narrow bitted ax for that express purpose, or by two augur holes at their ends, and the piece between cut out with a common ax. The work is simple, any way.

The rails for a post-and-rail fence should not exceed ten feet long, and six to seven inches wide enough, if the wood is straight-grained, and evenly split. Two inches, at the extent, is thick enough. It is no matter about the rails being seasoned. The bark should be taken off, and they will season themselves fast enough in the fence. Before beginning to set the fence, let the posts and rails be distributed along the line. Then commence at one end, and complete each panel as you proceed, so far as securing the foot of the posts is concerned. The packing of the earth around them can be done afterwards, although it should not be neglected beyond a day or two, as the fence might otherwise begin to lean by the winds or by its own weight. In setting the fence, be sure to place the posts near enough together to give the rails a good lap past each other where they meet in the holes. They ought to lap at least three inches, and be tight and firm when once placed, as a loose and shackling fence is always out of order.

We consider a good post-and-rail fence, five feet high, such as we have described, next to a stone wall, as the best enclosure a farm can have. It is cheap. It takes no room beyond its own simple line. It is strong, efficient and durable. Its cost will depend upon the value and convenience of the timber of which it is made. In a fairly timbered country, seventy-five cents is a fair price, and a dollar a rod is a high price for it. When saw-mills are handy, we would have both rails and posts sawed, making it a better job, and then it may be whitewashed if thought best, and made as ornamental as any other.

THE VIRGINIA, OR WORM FENCE.

This is a substantial and cheap fence in a wooded country—a lasting one, too, if suitable timber is selected for making it. We have named the best kinds for it, but less durable woods will answer a good purpose, if laid up from the ground, and exposed to the sun—not built in the shade of trees. The splitting of rails is too common and simple a business, where such fences are used, to need comment or description. The rails may be eleven or twelve feet long—not less nor more. From four to six inches diameter, of any shape they may come, is sufficiently small or large; and white oak, chestnut, black oak and black walnut, the best possible timber to make them of; each being strong, durable, and, with the exception of white oak, which is a heavy wood, quite light enough in weight.

In laying this fence, a solid stone, eight or ten inches broad, with flat surfaces, if to be had, should be made a foundation for the corners to rest upon. If not, wooden blocks, two or two-and-a-half feet long, of durable timber, and six inches thick, may be laid; but in no case should the ends

of the rails touch the ground, as they would soon begin to decay. The worm of the fence should be full five feet from corner to corner, at right angles, or two-and-a-half feet from the centre line of the fence. The fence corners may be laid either by two parallel lines of stakes, five feet apart, or one line of stakes on the centre. A short stake, about six feet long, with a right angled shank two-and-a-half feet long, secured to its foot, should also be provided—the stakes to range by, and the shank to measure the space for the worm to extend. This instrument the man who lays the worm, or bottom rail, carries with him as he proceeds, and with a little practice the corners can be laid with great accuracy and neatness. The heart wood rails should be laid at the bottom, as they are usually more lasting than those of the outer wood. The corners should be carried up perpendicularly. If not needed to be over five feet high, the corners can be secured by a lock—that is, putting two rails leaning across the corners on the same side of the line, and crossing the ends of the projecting top rails of the fence. But the most efficient way is to cross-stake each corner, and lay one or two rails upon them, according to the height of fence required. These stakes should be three inches thick and nine feet long, sharpened at one end, and driven well into the ground, with a good shank to hold them firmly.

Another way of staking a fence at the corners, is, to have the stakes six, seven or eight feet long, according to the height of the fence, and set them perpendicularly, and a stout plank or split block cap, with holes through it to receive the stakes, (and hold them firmly together) placed on the top; or, the stakes may be effectually wired at the top with annealed wire of about No. 6, (or the size of a rye straw,) which is quite as cheap as the plank, or block cap.

We know white oak rail worm fences which have stood fifty years, with occasional slight repairs, and are still good. They are anything but ornamental, we admit, but for utility, they are not easily excelled. Thirty cents to a dollar a rod, according to the value of timber, is their cost, and although they occupy more land than the post-and-rail, the ease with which they are built may cause them to be a more desirable enclosure.

Hedge Plants for the South.

Wherever a good hedge can be successfully grown, it is at once the nearest perfect and the most beautiful of fences. When well established, no winds can prostrate it, no animal penetrate it. It cannot be thrown down by the frosts, like stone; it does not decay like boards or rails. It needs no refitting and no painting. Every Spring renews its vigor, and adorns it with new beauty. It stands ever before the eyes a living wall of verdure, an object of taste as well as of utility. There is, unquestionably, an increasing desire for hedges, in all parts of the country, especially in the older sections, where wood is growing scarce, or upon the prairies and savannas, where there is no rock. Amateurs are experimenting with a great variety of trees and shrubs, and though no one may have been found that is adapted to all parts of our country, it is probable that every section is furnished with good native hedge plants.

Nature has been especially prodigal to the South, where not only most of our Northern hedge plants do well, but many indigenous and exotic shrubs are trained into beautiful living fences. In the writer's recent visit to the Gulf States, notes were taken of a few of these hedge plants, that fell under observation.

THE ARBOR-VITÆ, we saw in several places

and, in a moist soil, it makes even a thicker mass of foliage than at the North. No instance of the failure of this tree has ever come under our notice, and it seems to come nearer to a perfect hedge-plant for all soils and climates than anything yet tried. It bears the shears well, and makes a very good shelter from the winds, as well as a perfect fence.

THE RED CEDAR (*Juniperus Virginiana*), is hardly inferior to the Arbor-Vitæ. It grows more vigorously than with us, and makes a very handsome hedge. The *Horizontalis* is much like it in leaf and general appearance, and is a charming object in ornamental grounds, whether grown as a solitary tree or in masses.

THE WILD PEACH—Is a fine evergreen, and very commonly trained as a hedge. It belongs to the *cerasus* family of trees, and has the general appearance of our wild cherry. The flowers and fruit also resemble it. When the young trees are set about three feet apart, and kept well cut in, it makes a very stout and durable hedge.

THE CHEROKEE ROSE—Is probably more widely distributed in the South than any other hedge plant. It is a rampant grower, and thickly armed with spines which present a formidable aspect to pigs, sheep, and all domestic animals. It is not usually sheared, and covers a good deal of ground. It is commonly found as a boundary hedge between the plantations, on the bottom lands, and at the road side. It has a large, single, white rose, nearly two inches across, and makes a fine show. In the Delta it is frequently grown in connection with the sour orange, as a boundary fence. The two, together, make a hedge so high and thick that a house is as much secluded as if it were in the wilderness.

THE ORANGE—Is also cultivated as a boundary fence. It is a native of Arkansas and Texas, and of course perfectly adapted to the climate. At three years old, if properly trained and trimmed, it will fence any kind of stock, from the buffalo to the chicken.

Among the plants of small growth, adapted to gardens and cemeteries, we noticed

THE CAPE JESSAMINE—At the edge of a terrace or around a front door, nothing can surpass the bright green leaves and the beautiful flowers of this exotic.

THE CAMELLIA JAPONICA—Of our green-houses, flourishes in open culture all through the winter. It is a large, vigorous shrub, and when well trained, and loaded with blossoms, is one of the most attractive objects around a Southern homestead. It makes a beautiful border hedge for garden walks or a carriage drive.

THE PYRICANTHA—From Southern Italy, is another fine plant for the same locations. It is an evergreen, and armed with stout thorns, which makes it formidable to man and beast. We saw this as far North as Vicksburg, and it was represented as one of the best of hedge plants for the garden.

THE LIGUSTRUM SINENSIS—Is a larger evergreen, frequently met with in the gardens around New-Orleans. It is also known as the Chinese Privet, and makes a far more beautiful hedge than any Privet we ever saw. The flowers are very showy.

THE VIBURNUM SINENSIS—Is another fine exotic, found in the same region; highly appreciated.

With these admirable shrubs, our Southern friends have the best material for adorning their homes.

Reckless youth makes rueful age.



THE PASSING SHOWER

(Engraved for the American Agriculturist.)

The somewhat embarrassing, yet apparently pleasant position in which these two young people chance to be placed, is suggestive of many agreeable thoughts, with which a column might be easily filled; but the story is so well told by the picture itself, from the placard on the tree to the rainbow over the church spire, that a descriptive chapter is wholly unnecessary. The picture will be read with interest. This peculiarity of *telling their own story*, will be noticed as characteristic of most of the numerous engravings appearing from time to time in the *Agriculturist*.

Geographical Distribution of Plants.

It is generally admitted, we suppose, that plants (by which we mean trees and all other vegetable productions,) were at the first distributed by the Creator over the earth. They have not spread themselves, as man has done, from one spot in Asia over the other regions of the globe, but were for the most part originally created and

placed where they are now found existing. Why they were so distributed, we perhaps do not know, except that God designed the whole earth to be inhabited by man and beast. Plants, obviously, must grow in order to furnish subsistence for animals and men; and they are needful also for medicines, and in the arts, and for lumber. Plants were adapted to the particular region in which they were designed to grow. The palm-tree, for instance, was adapted to the tropics, and was placed there instead of at the poles. And besides this general distribution, plants were assigned to particular localities. To the sea, were given marine plants; to fresh water, aquatics. Marshes had other species; common soil had others still; and even arid plains were not left destitute. Rocks and trees were covered with mosses and lichens. Here were parasites, like mistletoe; and there were air-plants, like the black moss, (*Tillandsia usneoides*) of our southern States.

This, we say, is the *general law*, viz.: that plants were originally created for a specific climate and

soil and aspect, and that they have retained the position at first assigned them. Yet, this general law has exceptions. Plants have been carried from one part of the earth to another in various ways. Our wheat, potatoes, and other farm products are not indigenous to *our* soil. The finest and the largest number of the vegetables of our kitchen gardens have come to us from across the ocean. So of our flowering plants, shrubs, and many ornamental trees. Seeds of plants are carried far by the tides of the ocean, and by rivers and other streams. They are borne many miles through the air in parachutes furnished by nature herself, as for example, the thistle-seed on its down. They are carried in the crops of birds, in the stomachs of animals, and as burrs in their hair. Many of the plants so disseminated, do not succeed well in their new abodes, and many die after the growth of a single Summer. This is the case, especially, with those which have spread from one climate into another, as for example, from the south to the north. These are seldom

perpetuated, except as aided by the hand of man.

It is an interesting question to consider whether plants can be acclimated in a region materially different from that in which they are indigenous. Vegetable physiologists are in dispute about it. Some assert that the plant undergoes no constitutional change, and can not undergo any, on being removed from one climate to another. Others hold that a slight modification does take place. And the latter surely have some facts on their side, at least in the case of plants reproduced by seed. Take the case of Indian corn. That which is grown in Virginia, if taken at once to Canada, will not ripen. But take it there by degrees; plant it fifty or a hundred miles further north each year for several successive years, and at length it will become so modified that it will mature in Canada. Rice has advanced by a slow progress, from the Carolinas to Virginia, and can now be grown even in New-Jersey. Hence, it is inferred that an individual tree may be somewhat modified by a transfer from one climate to another. It is well known that a tree, slightly tender, becomes harder as it increases in age. Every year adds a new and thicker layer of wood and bark between the pith and the outer air, and so enables it better to resist frost. If then, we protect a young and tender tree for a few Winters until it has acquired thickness of bark, why may it not be able afterwards to endure a greater degree of cold than it would have experienced in its native climate?

So reasons Theory, with some plausible show. But stern Fact steps in and says: 'This is all a humbug: you may carry seeds from the south to the north, and their successive progenies will become harder from year to year; but not so with an individual tree: it can not materially change.'

Gardens for Farmers.

Why should not the farmer have as good a garden as any body? Don't he deserve some of the good things of this life? Does the curse of Adam fall exclusively upon his garden-patch, filling it with thorns and thistles, and compelling him to eat the fruit thereof in the sweat of his face, without any consolation? We don't believe it. If his garden is a poor one, let him blame only himself. He thinks, as we well know, that his great garden, the farm, needs all his attention, and will repay his labor and care, much better than the little garden of vegetables and fruits. But why not have both, and take good care of both? There is many an odd spell which, faithfully used, would keep the garden in excellent trim. An odd half day, with one or two of the hired men, would plow and plant it; and then, if the farmer would only so determine, it could easily be taken care of all Summer, without interfering with the regular labors of the farm.

There are many reasons why the farmer should have a good garden. The healthfulness and the pleasurable of it are sufficient reasons. Salt pork, blue beef, codfish and pickles, are well enough in their way, and at suitable times; but how much more pleasant and wholesome, if intermingled with some nice vegetables and fruits from the garden! What is better in Spring than a savory dish of asparagus, or parsneps, or vegetable oysters? A rhubarb pie, or a dish of strawberries and cream, who can be insensible to them? Early cherries and raspberries, gooseberries and currants are not to be despised. And so on, through all the heats and labors of the Summer, what a fountain of health and comfort may the garden be made! Nice young beets, peas, radishes, beans, cucumbers, melons, squashes, grapes,

plums, and what not, are all healthful, if eaten in moderation; they give a relish to other food and promote appetite and good digestion. And surely, a farmer is a happier man, if his daily toil is cheered by such pleasant repasts. He enjoys life as it goes. His laborers are more contented; his children grow up attached to their rural home.

We insist upon it, as we have done before, that if farmers would have their sons and daughters contented and happy, they must not scold them for their discontent, but must make farm life so pleasant that they will not desire to abandon it. They must relieve it as far as possible, of wearisome drudgery, routine and coarseness, and mingle comforts and pleasures with its severer labors. A garden of fruits, vegetables and flowers, will do much toward accomplishing this result.

Shall the Robin be Destroyed?

INTERESTING REPORT.



THE members of the Massachusetts Horticultural Society are deserving of much credit for an investigation set on foot at their first meeting

last year, (Jan. 9.) To bring the subject forward formally, a resolution was offered to "authorize the President, in behalf of the Society, to petition the Legislature to repeal such of the statutes and laws of the Commonwealth

as punish the taking, killing, and destroying of the bird commonly known as the Robin." An animated discussion took place, and a Committee consisting of Messrs. J. W. P. Jenks, Prof. of Zoology; C. M. Hovey, and E. S. Rand, jr., was appointed to make a thorough investigation, and report at such time as they might deem advisable. This committee entered upon their labors with much interest and zeal, and continued them through the year. In a recent number of the Journal of the Society, we have the report of Prof. Jenks, Chairman of the Committee, in full, and condense therefrom the following outline, which will be found interesting.

The plan adopted in the investigation was, *First*, to obtain birds at day-break, mid-day, and sunset: *Second*, to obtain them from both village and country: *Third*, to preserve in alcohol the contents of each gizzard.

In accordance with this, specimens were examined at least weekly, and most of the time daily from March to December last, and at several periods during the winter.

The male birds made their appearance first, early in March, followed by the females the second week in April. The gizzards of those killed in the morning were almost entirely empty, or but slightly distended with well macerated food, while those killed in the latter part of the day were as uniformly filled with fresh food.

In the almost daily examinations of their gizzards, from the early part of March to the first of May, not a particle of vegetable matter was found in a single bird, insects in great variety, both as to number and kind, forming their sole food, a large proportion of which was the bibio larvæ, an insect feeding principally upon the roots of grass.

During May the larvæ entirely disappeared from the gizzards, being replaced, up to June 21st, by a variety of insects, including spiders, caterpillars, and beetles, of the family Elateridae, the

parents of the well known wire-worms, so destructive to corn and various other seeds. The earth-worm was found to be a favorite food for the young robin, but was sparingly employed by the adult bird for its own use.

From June 21st, strawberries, cherries, and other pulpy fruit were found, usually intermingled with the insects, leading to the conclusion that the fruit was used for a dessert during the enervating season of moulting, as it was more easily procured than any other food.

This mixed diet of the robin continued from the ripening of strawberries and cherries to October,—the vegetable portion consisting, during August and September, mainly of elderberries and pokeberries.

During October the vegetable diet was discarded, and grass-hoppers and other orthopterous insects supplied its place.

Early in November the robins mostly migrate to the South. The few which remain, exist during the winter, upon bayberries (*myrica cerifera*), privet berries (*ligustrum vulgare*), and the common juniper berries.

Prof. Jenks proposes to pursue his researches and observations still further; but from what has already been shown, it is very evident that the fruit which the robin takes for his dessert can well be spared him in view of the vast service he renders by destroying immense quantities of insects alike injurious to fruit and vegetables. We hope that not only the Society above named, but other like associations will institute and continue similar investigations respecting other birds.

The Black Knot on the Plum.

We find on our files the following remarks from a correspondent in Oneida Co., N. Y.: Horticulturists are evidently becoming discouraged in their attempts to cultivate the plum. The curculio and the black-knot are two formidable enemies. Of the curculio I do not now propose to speak; but the black-knot I believe can be kept in check, if not exterminated. Careful observation has ascertained pretty clearly what the cause of the knot is. It is undoubtedly the sting of an insect. This insect is about an inch long, pale yellow in color, has four wings, and hind legs resembling those of grasshoppers. The puncturing of the branch is done by the female, who stings it in order to deposit her eggs. These eggs, numbering often as many as ten or a dozen, are laid in August and September. They are soon hatched, and the larvæ lie dormant until the early part of the following Summer, when they are changed into winged insects.

The tumor on the tree appears to be caused partly by the puncture itself, and partly by a poisonous substance infused at the time the wound is made. By frequently examining plum-trees in the months of August and September, the insects will be found busy at work, stinging the branches and making their deposits; which being done, the whole is varnished over with a water-proof substance, and domestic matters are kept quiet until the larvæ are hatched. Cut open a limb that has been stung, early in June, and the larvæ will be found alive and kicking.

Of course, the only way to subdue this pest is to wage an unceasing war upon it. Entrap him in bottles of sweetened water hung in the trees; burn him in bonfires kindled in the garden by night; examine the trees often, and cut out the tumors as soon as they appear, and burn them. This cutting of the limbs does no serious harm: they soon heal over. By pursuing this vigorous treatment, the black-knot will do little practical injury.

ONEIDA.

Profitable Pear Trees.

A gentleman near Vicksburg, Miss., recently sold fruit from two hundred and fifty pear trees, occupying about two-and-a-half acres of land, to the amount of five thousand dollars, in a single season. They were packed in boxes, holding about three pecks each, and sold for four dollars a box. The varieties were principally the Bartlett, and the Beurre Diel, and each box contained from four-and-a-half to five dozen pears. The fruit on a single tree sold for eighty dollars.

An amateur in the same vicinity, sold last season from a single tree planted ten years ago, one hundred and twenty dollars worth of fruit. The variety was the Beurre d'Amalis, and the quantity twenty-six boxes, of seven to eight dozen each. Two years ago, the same tree produced twenty-five boxes, when it had been planted but eight years. It bears only in alternate years. He had many other trees of the same age bearing from five to fifteen boxes. It is needless to say that these trees had careful culture, and a plenty of food. [The above item is from the pen of an Associate who has been at the South since last Autumn. He has been successful above many others in growing pears in New-England, and is justly entitled to speak enthusiastically of the value of pears as a paying fruit. But so far as our observations have extended over the country generally, we can not commend the culture of pears as certain to be a safe and sure paying crop. They often do well, and pay well, and no one should fail to try them on a small scale for home use at least. But to depend upon the growth of pears for a livelihood or a fortune is, to say the least, a hazardous enterprise—with the great majority of persons. Great crops, like those referred to above, are by no means uncommon, but they are noted more as an exception than as results to be generally looked for.—Ed.]

To obtain Fruit from Barren Trees.

To the Editor of the American Agriculturist:

I wish to describe to you a method of making fruit trees bear that I blundered on to. Some fifteen years ago I had a small apple tree that leaned considerably. I drove a stake by it, tied a string to a limb and fastened it to the stake. The next year that limb blossomed full, and not another blossom appeared on the tree, and as Tim Bunker said, "it sot me a thinking," and I came to the conclusion that the string was so tight, that it prevented the sap returning to the roots; consequently, it formed fruit buds. Having a couple of pear trees that were large enough to bear but that had never blossomed, I took a coarse twine, wound it several times around the tree above the lower limbs, and tied it as tight as I could. The next Spring all the top above the cord, blossomed as white as a sheet, and there was not one blossom below where the cord was tied. A neighbor seeing my trees loaded with pears, used this method with the same result. I have since tried the experiment on several trees, always with the same result. I think it a much better way than cutting off the roots. In early Summer, say June or July, wind a strong twine several times round the tree, or a single limb, and tie it, the tighter the better, and you will be pleased with the result: the next Winter or Spring the cord may be taken off.

JAMES R. RUSSELL.

Trumbull Co., O.

REMARKS.—The above plan is similar in effect to "ringing the grape vine," described in the December *Agriculturist*, Vol. 17. It is frequently made use of by fruit growers to hasten the bearing of

young trees. Wire is sometimes used, but it must be removed before the next season's growth, or it cuts into and deforms the tree or branch: on this account the lead wire spoken of on page 212 of last volume will be preferable, because it compresses the bark sufficiently, but yields in length, and finally breaks with the increased growth.—Ed.

Labels on Fruit Trees.

The labels generally attached to trees and plants when sold from the nurseries, are not designed to remain permanently upon them. The twine will soon rot off, or the wire cut through the bark, if the tree grows, or be so deeply imbedded that it can not be got out without injury to the tree. At the very first leisure, after the hurry of planting, zinc, or other indestructible labels, should be made and applied. To make a cheap and lasting label, take a strip of thin sheet zinc, about four inches long, and three-fourths of an inch wide at one end and tapering to the other end. Write the name on the broadest part, and bend the narrow part around a small branch, and it will expand as fast as the growing tree requires. To make the ink: "Take of verdigris and sal-ammoniac each 2 drachms; lampblack, 1 dr.; water four ozs.; to be well mixed in a mortar, adding the water gradually. Keep the ink in a vial with a glass stopper." In writing, use a quill pen, shaking up the ink well before using. If thoroughly dried before being exposed, the writing will last a dozen years and often much longer.

A label got up by B. K. Bliss, of Mass., the exact size of which is here shown, is very neat in



appearance, and durable. It resembles a locket made of zinc, the face being covered with transparent mica. A slip of paper with the name of the tree printed or written upon it is placed under the mica, and the edges of the zinc brought down closely around it to hold it tight and exclude water. A small ring is attached, by which the label may be suspended from the tree with wire. They are perhaps too expensive for general use as they cost some \$4 per hundred.

A substitute for labels of every kind, is to keep an accurate map of one's orchard or fruit garden, in which the name and position of every tree are carefully recorded.

Trees and their Insect Enemies—Mistaken Notions.

1. It is a mistake to suppose that digging up the grass for a foot or eighteen inches around an old apple-tree, does it any material good. That amount of loose soil about the stem of a newly planted young tree, would be of much service. It would enable the air and moisture to penetrate to the roots, and it would prevent the soil from being exhausted of the food which the young roots needed. But where are the roots of a full-grown apple-tree? At least, ten or fifteen feet away

from the trunk. The great arteries, to be sure, are nearer, but the smaller roots, the fibrous net-work of spongioles with their thousand hungry mouths are off, a full rod or more; and they laugh (if, indeed, they do not weep,) at the man who thinks he is helping them while grubbing away around the old trunk! As well might one think that he is feeding his horse, by simply rubbing his back with an ear of corn!

2. It is another mistake to suppose that cotton-wadding tied round the trunks and limbs of plum and cherry-trees, prevents the ascent of the curculio. "But my paper said it would," exclaims an indignant subscriber. Indeed! but we are sorry to say that mistakes will sometimes get into the newspapers, as surely as the "Grand Turk" will get into the plum-trees, and there's no sovereign remedy yet discovered for either affliction. "But tell us how the curculio finds his way into the trees!" Not by crawling only, else the cotton would stop his travels; but he has a good pair of wings and knows how to use them, and so he flies to the forbidden fruit without let or hindrance from the great southern staple.

American Fruits—Past and Present.—IV.

BY LEWIS F. ALLEN, ERIE CO., N. Y.

(Continued from page 147.)

THE QUINCE.

This is a valuable fruit to all nice housekeepers who pride themselves in the possession of a choice marmalade, or a delicious preserve with which to regale their friends at the evening tea-table, and to that extent is worthy of cultivation by those who can succeed with it, or rear it for market. Throughout the Atlantic States, north of the Potomac, next to the sea-board, and in New-York, extending to its farthest western boundary, in many a warm and sheltered spot, under the protection of fences and buildings, and in some severely exposed places it flourished and bore fruit in profusion until a few years ago—but in very many less places now. In the small lake valleys of western New-York, the Genesee country, and near Lake Ontario, on to the shores of Erie, in good situations it thrived and bore wonderfully. Specimens of a pound in weight were frequent, and half to three-fourths of a pound common. I had a tree that for an average of sixteen years, paid me the interest of a hundred dollars annually. But it is so no longer. Thousands of vigorous, middle-aged, bearing quince trees have bit the dust within the last few years. The extraordinary cold of three or four unusually hard winters, commencing five years ago, first pierced their vitals; simultaneously the borer attacked them, for which there was no apparent remedy in either case, and the trees are—dead. I saw quinces selling for three dollars a bushel in market, last fall, that would not have brought fifty cents five years ago—hardly worth the gift.

There is a nostrum for the borer, however, as there was for the plum, as I have related, and by the same party: "Take a knitting needle, or a piece of sharp-pointed wire, run into the hole made by the worm, and punch him to death!" Now, it so happens that this worm hardly ever goes *straight* into the tree, but when once a lodgment is effected, he turns upward or sideways, preying upon the soft sap-wood just under the bark, and works at his leisure, filling up the track behind him with woody excrement, as impenetrable to the wire as the wood itself. I have followed him with the hawk bill of a pruning knife half round the body of a tree three or four inches in diameter, before I dislodged him; and it is useless to say that the effort to find him, cutting the way to him, was quite

as fatal to the life of the tree, as the ravages of the worm itself. In some cases, to be sure, they bore the tree through and through, making its trunk a perfect honey comb in appearance, but the sinuosity of their course is found in the same place, and usually before they commence the straight bore. The entrance is between "wind and water," in nautical parlance, or just above the ground. Cover this point with earth, or what you please, and the worm will enter above it. I have seen these holes three feet above the ground, half way to the branches. A remedy may be found, and I have heard many suggested, but so far I have seen none which have proved decidedly effectual.

The borer, too, with other scourges of the insect tribe, may be on its travels, and go from our presence after due punishment to us. I hope so; for my anticipations for the future enjoyment of our fruit lovers will be gloomy indeed, were these pests sure to remain with us for all time.

Thus, although not discouraged, and our obstacles to successful fruit growing not so formidable as they might be, our pomologists will find they have got work to do, and their skill and ingenuity have a wide field of action before them, to overcome all their difficulties. That such may be the result, I hope and trust, and while there is a possibility of success, my advice is—plant on—plant over.

Desirable Evergreens.

In fulfillment of our promise, last month, to give a list of the best and really hardy evergreens, we name the following:

I. PINES.—Weymouth or White. (*Pinus Strobus*.) Common though it be, it is, after all, one of the best of this large family....Scotch. (*P. Sylvestris*.) Called Scotch, but abounds quite extensively throughout northern Europe. Bluish foliage, very hardy, rapid grower, excellent....Austrian. (*P. Austriaca*.) Is a native of the mountainous regions of central Europe, and is hardy everywhere. Foliage dark green, unchanged by Winter, grows in any soil, is easily transplanted, every way desirable....Larch or Corsican. (*P. Laricio*.) From the island of Corsica, yet sufficiently hardy for our northern States; is similar to the Austrian, but the leaves are of a lighter green....Swiss Stone Pine. (*P. Cembra*.) From the Alps, of pale green foliage, slow in growth, but perfectly hardy and quite desirable....Heavy Wooded Pine. (*P. ponderosa*.) From Oregon, resembles the Austrian, but is darker, of bolder habit, and more rapid in growth. Hardy, of course....Bhotan pine. (*P. Excelsa*.) Resembles the White, but has more silvery foliage, and is very graceful. It is too luxuriant in growth to succeed well north of New-York. To these we suppose a few others may be added, but we can not speak of them from personal observation.

II. SPRUCES.—The Norway. (*Abies Excelsa*.) This stands first, of course....Black and White Spruce. (*A. Nigra*, and *A. Alba*.) Both natives of our northern States, and worthy of planting. The black grows in good soils, almost as splendidly as the Norway....The Hemlock. (*A. Canadensis*.) This Spruce is of slower growth than the others, and is not quite so easy to transplant; yet aside from this, it is hardly inferior to any known conifer. It makes a beautiful lawn-tree, works well into groups, and makes a good screen or hedge. The Spruce family is not as large as the pine. There are several varieties of the Norway Spruce, mostly dwarf, which are hardy and may prove desirable when further tried. The Douglass and the Indian Spruces are very beautiful, but are not

proved to be hardy enough for northern gardens.

III. FIRS.—The Common Balsam. (*Picea balsamea*.) This tree has many good traits, such as hardiness, ease of transplanting, symmetry, and fine, persistent color; but it often becomes lean and shabby, as it grows old. It is worth planting, but it should not supersede other firs which are equally hardy and better. Of these, one of the hardiest and best is *Picea pichta*, or Siberian Silver Fir. We can assure our readers of its perfect hardihood north of Albany....Norman's Silver Fir, and Fraser's Fir are very fine, and will undoubtedly stand the coldest Winter....The European Silver Fir, (*P. pectinata*), is a very capricious tree. It sometimes grows finely for several years, and then loses its leader, and that, too, in the mild climate of Pennsylvania. Mr. Sargent, in his new edition of Downing, recommends also *Picea Cephalonica*, *P. Nobilis*, and *P. Pinsapo*, as among the finest firs.

IV. ARBOR VITÆ.—The American. (*Thuja occidentalis*.) This is a very common, but very useful tree. It is often, but erroneously, called white cedar, which is a different tree....Siberian. (*Thuja Siberica*.) This is slower in growth, but in all other respects is finer than the last; it is denser in its habit, of a darker green, and holds its color well in the Winter. The Savans in arboriculture are in dispute whether there is any real difference between this and *Thuja Warreana* and *T. plicata*. Without entering into the debate, we can only say, very wisely, that either is good enough, and all are very desirable....*T. gigantea*, from the Columbia river and the Rock Mountains, promises to be a valuable tree; as yet, however, little is known of it. South of New-York, the Chinese Arbor Vitæ makes a neat, small tree.

V.—JUNIPERS.—The Common. (*Juniperus Communis*.) This is a small tree, common to England, Norway, Sweden, Denmark and Russia. The Swedish variety is most commonly grown in this country. It makes a compact, conical, tapering tree, of silvery green foliage. It sometimes reaches to twelve or fifteen feet in height. It resembles a miniature Lombardy poplar. The Irish variety is very pretty, but not quite as robust. The Chinese is yet comparatively rare in this country, but is highly recommended for its hardiness and beauty. The Red Cedar, (*J. Canadensis*), is worthy of a respectable place in all plantations. The Weeping Juniper, from Japan, (*J. oblonga pendula*), will be sought for by all amateurs: it is a great curiosity.

The foregoing comprise, probably, most of the really desirable evergreens, suitable for northern climates. Others are now being tested by such amateurs as Mr. Sargent, and by nurserymen in different parts of the country, and some of them will undoubtedly be added to the list. Among those of which we have some knowledge, we look with special hope and interest to the *Thuiopsis Borealis*, from Nootka Sound; the Mammoth Tree of California; the Weeping Arbor Vitæ, and the Yew-leaved Torreya.

Propagation of Evergreens.

In answering certain inquiries on this subject a few months ago, we might have added to what we then said that, to ensure success, it is well to bury the seeds of conifers in boxes of sand during the Winter, and then sow in the Spring as described. It is quite probable that many of the Norway Spruce and Arbor Vitæ seeds, sent out by us during the past Winter, will fail to vegetate the first season, as they were necessarily sent away dry. Should this be the case, leave them

undisturbed during the Summer, with the exception of pulling the weeds carefully, and it is likely they will show themselves another Spring. They will be less liable to be disturbed if in boxes, or pots, plunged into the garden border and watered occasionally if needful.

And here, we will observe further, that most evergreens can be raised from cuttings. Pine, fir, and spruce cuttings set out in August, are quite sure to grow, in skillful hands, if they are made of the current season's growth, taken off just at its junction with the last year's wood. If they are struck in a moderate hot-bed and properly shaded and otherwise cared for, they will root in a month's time; if in open ground they will need to lie until the following Spring. In this last case, they must be protected from hard freezing in Winter, as also from the extremes of sunshine, dryness, and rain. Starting in a hot-bed is much the surest method, although care is requisite even here to insure general success.

Uses of Shruberry.

Shrubs play as important a part in ornamental grounds as trees do. Indeed, trees are planted too abundantly, in most places. As they attain to maturity, they become much larger than the planter expected, they overshadow the grass, shrubs, and flowering plants beneath them, and prevent their healthy growth. And, what is of equal importance, they seriously obstruct views of the surrounding landscape. In grounds of ordinary size—say from half an acre to two acres—forest trees should be used sparingly. They should be kept near the boundaries, a few only being scattered at wide intervals over the premises. In place of large trees, shrubs of all sizes should be used, and some small trees. Among shrubs, there is a wide range to choose from, beginning with the little *deutzia gracilis* and dwarf syringa, and going up to the lilacs, upright honeysuckles, hawthorns, euonymous, and the like.

In small places, shrubs may be planted on the same artistic principles that would be applied to trees in a grand domain; setting some in groups, some in belts and thickets, and others as single specimens. If properly managed in this way, grounds of half an acre would be made to appear twice that in extent.

Shrubs are better than trees for concealing fences, and they submit better to the pruning knife. They are desirable, also, for their flowers, varied and fragrant, and for the scarlet berries which many of them retain in Winter. For outside belts and screens, to break off the cold winds of Winter, it is important to use evergreens. But as it would produce a monotonous appearance to use them alone, it is an excellent plan to set groups and specimens of flowering shrubs before them. The effect of their more lively and airy leaves and flowers, contrasted with the somber back-ground, is very pleasing.

In selecting shrubs, it is as important to choose those having good and persistent foliage, as those having fine flowers; indeed the first is more important than the last. The flowers last only a few weeks, while the foliage is to be viewed all Summer. In planting groups or belts, the bushes should be set rather thickly at the outset, for immediate effect, but should be regularly thinned out as they encroach upon each other. Of course they should be set in good soil. No satisfaction need be expected from them, if they are merely thrust into a hard hole in grass ground, and then left to struggle for life.

Hungry men call the cook lazy.

Bedding Plants.

The present style of ornamenting gardens and lawns with Summer bedding plants, is much to be commended. The old fashioned flower-garden, with its medley of annuals, biennials, perennials, shrubs and vines, should not be discarded, by any means; but the plants now referred to may be used as adjuncts to produce certain effects which common plants can not. If we had only a small patch of ground to ornament, we should use bedding plants alone; and if our flower-garden were necessarily very conspicuous, we should use them almost exclusively. These plants are in bloom nearly all the time from Spring to Winter, while the others have only a temporary, evanescent beauty.

The Verbena is perhaps the best of all bedding plants; it is so easily managed, so abundant in bloom, and so varied in color. Fragrance is now being added to its many excellences. It is a good plan to set them in distinct masses of one color, or of two colors side by side in strong contrast. Scarlet and white make a brilliant combination, and blue and white are very pleasing. If any reader wishes advice in selecting sorts, we can only say in brief that the following verbenas are excellent: *Scarlets*: Robinson's Defiance, Orb of Day, and Chauverc. *Crimsons*: Lord Raglan, Giant of Battles, and St. Margaret. *Blue and Purple*: Blue Defiance, Blue Bonnet, Rand's Blue, *Purpurea odoratissima*, and Hiawatha. *Pink*: Cornelia, Peter B. Mead, and Eva Corinne. *White*: Constellation, Rand's Seedling, and Mrs. Holford. *Striped*: Mad. Lemonnier, Imperatrice Elizabeth, Sarah, and Striped Eclipse, with many others.

The petunia, is now rising in favor. The striped varieties are beautiful, as also the reds with white throats, and the double sorts. The latter have mostly a pleasant odor. A bed of eight or ten kinds, neatly trained to green stakes is surely a very fine sight.

Scarlet Geraniums, and those with variegated foliage deserve a conspicuous place. Lantanas, of several sorts, Ageratums, Pentstemons, Neirembergias, Cinerarias, Fuchsias, Pyrethrums, and the like, if tastefully arranged, make a brilliant show, and keep a garden gay all Summer long.

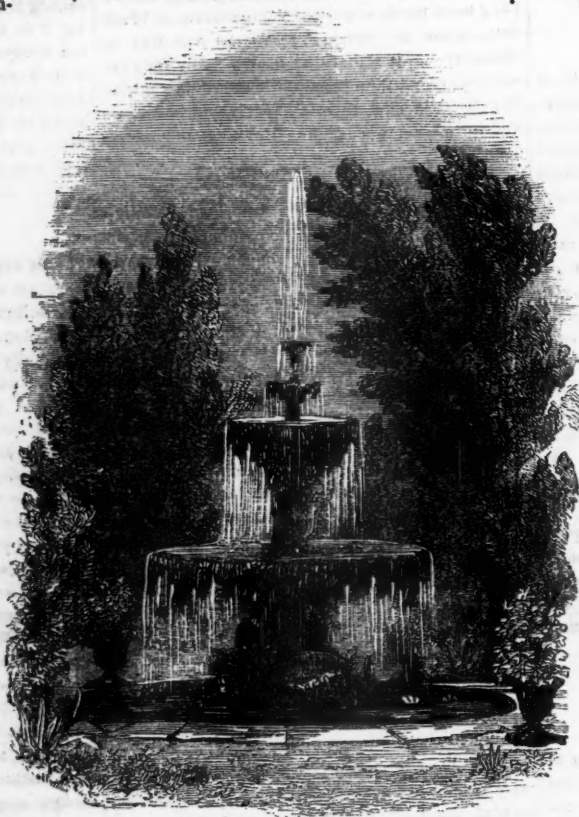
For most of our readers, it is not yet too late to supply themselves with these desirable flowers. They can probably all be had at any respectable nursery or florist's establishment.

Thin out the Plants.

Most persons allow their plants, both vegetables and flowers, to grow too near together. Beets, onions, carrots, parsneps, etc., should be thinned out very soon after they appear above ground. Cucumbers, squashes and melons need similar treatment. Three plants left to grow in a hill are sufficient.

So of flowering plants, raised from seed. They are too often left to grow in a dense jungle or bunch, where they crowd each other, become weak and spindling, and never attain their native beauty. Annuals may sometimes be grown in masses, but even then they are much finer if the individual plants stand several inches apart. Where it is not wished to mass them, such flow-

ers as Candytuft, Phlox Drummondii, Asters, Balsams and Stocks should stand at least one foot asunder. We now recall the sight of a single plant of white candytuft grown in our garden last Summer, which was shaped like a beehive and covered with a profusion of flowers in every part, and looked much better than if massed. It sometimes requires a good deal of courage to pull up vigorous growing young plants and throw them away, but it must be done, if one would have a valuable garden of vegetables or flowers.



Fountains for Gardens and Lawns.

Few ornaments are more pleasing, more universally attractive, more worthy of admiration, than a fountain in a garden or lawn. Nor is an artificial fountain so costly or difficult of construction, as is generally supposed. It is one of the cheapest luxuries, where there exists the natural advantages of hilly ground, and some source of water on a higher level. There are almost innumerable localities of this character in various parts of this country. With a few additional feet of pipe, and a simple structure, the same stream that now supplies the barn-yard and household, may easily be made to throw up a jet of water ten, twenty, or more feet in height, to fall back upon a pile of loose rocks or stones, or into an artificial pond, producing the most pleasing effect. We have seen them made by constructing a shallow basin, six to twelve feet in diameter, the bottom covered with gravel, and the sides formed of brick laid in cement. In the centre a pipe projects upward a few feet from the bottom, and this is surrounded nearly to the top with a mass of broken, not rounded stones. The pipe may extend higher, and pass through two or more iron basins, placed one above the other, the upper one smaller than the lower. The basins are not necessary, however, where it is desirable to avoid expense. A few water (aquatic) plants growing around or among the rocks, are a pretty addition.

Shells may also be introduced. Trees planted around the basin or pond, partly overhanging it, add to the effect, dispense a cooling spray, and furnish a delightful resort on a sultry day.

How to Improve a Flower Garden.

Books and papers will afford much information on this subject, but there is something to be learned outside of them. By reading, we get hold of many useful principles and facts, but careful observation will teach us many more, hardly less useful. He is likely to make the best

gardener, who knows best how to use his eyes. We therefore make this suggestion to our readers, for their use the present Summer. Visit all the gardens within your reach, and make notes of every new thing you see. Begin early in this very month of June, and continue your visits throughout the Summer. Every proprietor of a fine garden, on learning your object, will welcome you within his enclosures, and give you all facilities for learning what you desire. Study, then, the arrangement of walks, and how they are made. Note the trees, shrubs, vines and plants. Observe their times of flowering, their color, fragrance, and whatever else may strike you. Persevere in this, and by the close of the flowering season, you will have learned much that will be of great practical use—saying nothing about the enjoyment you have experienced. From your notes, you can select a list of plants with whose habits you are already familiar, which will add much to the beauty of your own garden. Many persons annually ransack the catalogues of distant nurserymen, in order to find plants to decorate their grounds with; and on selecting those which have high

sounding names and brilliant descriptions, they are often disappointed, when the plants come to flower in their own grounds. If you can see specimens of your flowers before you purchase them, it is much better than to buy at hap-hazard. By carefully putting down upon paper, notes of what you see in your own gardens and in those of others, during the present season, you will be all ready to make early selections another year, and also to arrange various plants in proper harmony.

Roses in Pots.

When roses are bought at the green-houses in the Spring for home culture, their growth is frequently checked after a week or two, and though they may not die, the promising young shoots make but little progress. After the first flowers they show but little disposition to continue to bloom, and thus disappoint those who were at first attracted by their showy appearance. This is owing partly to unskillful management. At the green-house they had been kept in a temperature of from 60° to 70°, frequently watered and occasionally treated to a dressing of liquid manure. Any sudden change in the treatment of plants will generally be followed with unfavorable results. The rose, as usually treated in green-houses, is made very sensitive to such changes by having been forced into early bloom. The plants were taken from the open air late in the previous Fall,

and by the stimulus of heat and exciting manure, are brought into growth before hardening off; hence in Spring their strength, already severely taxed, is inadequate to resist exposure that otherwise would not injure them. The check will, however, be but temporary, and the plants will, if properly manured, regain their former healthy habit. A manure made by mixing one part of night soil with three of charcoal dust, and forked in around the surface, is an excellent application to strengthen and bring plants forward.

Chrysanthemums.

Among English florists, the chrysanthemum is rapidly becoming a great favorite, both the large-flowering or Indian varieties and the Pompones. In some quarters, they have almost superseded the regal dahlia. At the exhibitions everywhere last Autumn, they formed a principal feature. They are so symmetrical in form, so double, so varied in color and markings, and withal so easily raised, we do not wonder at their great popularity. The climate of Great Britain is undoubtedly more favorable than ours to their success: our Summer, north of New-York, is a few weeks too short. But some varieties flower as early as September, and by propagating from these, others may be obtained. We hope our florists will give their attention to this matter. For varieties to bloom in the parlor or green-house during November and December, we have already everything that can be desired.

Those of our readers who wish to have good plants next Fall, must give them good management during the Summer. Our instructions on this subject, given in the February No. of the *Agriculturist*, contain what it is of chief importance for the young florist to know.

Look out for the Insects.

Owing to the decrease of birds, and perhaps to other causes, insects are now alarmingly on the increase. Their mischief is usually discovered too late to do more than prevent the possibility of their multiplying, by picking up and feeding out, or cooking the punctured fruit, and thus destroying the worm lodged in the heart. This is a tedious operation however, and hardly practicable with peaches, plums and cherries.

The parents of all these mischievous worms are winged insects, which flutter about among the trees, and lay their eggs either upon the surface of the tender fruit, or puncture it and deposit the eggs beneath the skin. Again, most of these winged insects, or millers, are either naturally *night fliers*, or can be brought out by a strong light. Now, every one has observed that millers are so attracted by light as to fly directly into the flame of a candle. It is well to take advantage of this weakness, and kindle low fires about the orchard and fruit gardens in the evening, and thus catch the trespassers. The early part of June is the proper season to commence this war of extermination, which, if vigorously entered into by a neighborhood, would destroy vast quantities of them in the very act of providing for their progeny. Remember, too, that with every parent moth, from fifty to one hundred little white maggots are destroyed. Follow this practice up night after night, for two weeks, and an immense number of insects will be cut off. Tie old rags upon short sticks, and dip them first into tar, and then in saw-dust or powdered charcoal, until of a large size. These will burn with a bright light for a long time, dazzling and

attracting the unlucky moths or millers from some distance around.

Chinese Fire Crackers vs. Black Ants.

One practical use of Fourth of July Fire Crackers discovered at last.

To the Editor of the *American Agriculturist*:

My residence, in West Philadelphia, Pa., is built in a grove of some sixty lofty forest trees, which give a grateful and pleasant shade, but we have been much annoyed by large nests of black ants, some of which are four to five feet in diameter on the surface of the ground. They destroyed the garden beds and injured the walks. We tried oil, hot water, pickle, hot stable litter, and in fact every thing we could think of, to drive them away. On one bed we poured a gallon of oil of vitriol, which of course destroyed all that touched it, but the nest still flourished. We had, in fact, abandoned all idea of killing or getting rid of them, and ceased any further efforts. Last 4th of July my boys were amusing themselves discharging fire crackers, and by chance fired off several packs on a large ants' nest. Some week or ten days after, we discovered that the ants were gone. We have since set off several packs of common Chinese fire crackers on other ants' nests, and invariably the tenants have left the premises. The best and most effectual mode of destroying these insects, is to take a stick and plunge it into the nest in many places, to set them all in motion, then light a pack of common fire crackers, and place it in the center of the nest, and if not successful try a second or a third pack, which will finish them.

A SUBSCRIBER.

About Crockery.

"Bridget. Here! Who broke this plate?" "Sure, ma'am, it's come apart of itself, ma'am; it's this long time it's been cracked, ma'am." And Bridget is nearly right. It was probably cracked, very slightly at first, by being improperly subjected to heat; the water has subsequently been absorbed by the clay of which the inner part of the dish is composed, and swelled it until it "broke itself," or was easily separated. If we examine the edge of a broken piece of earthen or china ware, we shall see that there is, first: a coarser compound of an apparently porous nature, which forms the bulk of the ware; and a thin firm coat, resembling glass, and called the glazing.

The inner part, composed of a mixture of clay (alumina,) and ground flint (silica), is made first—the material being mixed with water, molded into shape, and baked. In this state the ware would be unfit for use, as it readily absorbs liquids of almost all kinds. To prevent this, the *biscuit*, as the ware is called after the first baking, is dipped into a composition of clay, litharge (oxide of lead,) and ground flint mixed with water, and then submitted to a higher degree of heat. By this process the materials are melted together on the outside of the dish, to which the glazing thus formed, adheres in a layer of uniform thickness, and being of the nature of glass, effectually excludes moisture from the interior, so long as it remains unbroken.

If, now, by careless handling, or too sudden change of temperature, the glazing is cracked, the dish sustains injury from which it will never fully recover; increasing wrinkles (cracks in the glazing,) mark the progress of decay, until it "breaks itself, ma'am." Such dishes also absorb oil, and various flavors, or rather odors, from the different kinds of food that may be placed upon

them, and thus become tainted and unfit for use. The peculiar taste of pie-crust, baked upon an old cracked dish, proceeds from this defect, the rancid fat from previous bakings having been absorbed from the dish by the crust.

House-keepers generally know that a frosty dish plunged into hot water is liable to break; but the glazing may be cracked by a much less sudden or violent change, unless the dish has been properly annealed. This is, or should be done at the manufactory, by placing it in an oven, raising it to a high degree of heat, and then allowing it to cool very gradually. As this process is not always properly performed, it is well for the housekeeper to place all new dishes in cold water, heat them gradually until boiling, and then let them stand on the stove, regulating the heat so that it shall require several hours to cool them; this will anneal them, somewhat, at least.

The "What-Not."

This appropriate name is given to an article of furniture now found in many parlors and sitting rooms, and which may be made highly attractive and ornamental with but little expense. It is essentially a series of from four to six light shelves, one above the other, decreasing in size from the bottom upward, supported by neatly turned uprights. It is usually made of triangular shape to fit a corner, the front of the shelves being rounded out into a quarter circle; though others for the sides of a room are of rectangular shape, having upright supports for the shelves.

A very pretty and cheap what-not is made by taking from three to six light, thin, pine boards of different lengths and widths, and boring holes near the ends, through which four cords are inserted, with knots at suitable distances to hold them one above another in shelf form. If for the side of a room, the lower shelf may be 2½ to 4 feet long, and 10 or 12 inches wide; the next shelf above 6 to 10 inches shorter, and 1 to 2 inches narrower, and so decreasing to the top piece. If for a corner, two sides of the board must be cut at right angles to fit the walls; only three cords are needed. The shelves of a wall or corner what-not may be rounded, or scalloped in front, as fancy or taste may dictate. The shelves may be stained, or painted and varnished. They are quite pretty when only covered with furniture or common calico, or merino, or other fabric. A fringe along the front edge of the shelves gives a tasteful finish. What-nots are sometimes used for books, but they are usually intended to receive various fancy or ornamental articles, vases, statuettes, curious toys, shells, wax flowers, miniature cabinets of insects, etc., in short, all those little knick-knacks, and—*what-not*, which display the ingenuity and taste of the various members of the family. We think this preferable to placing them upon the mantel-piece.

The "Pantry."

Who has not pleasant recollections connected with this word! In childhood, it was "the wonderful cave," where were concealed untold treasures of sugar and preserves, sweet spices, and forbidden fruits. In girlhood, what rare times we have had in the pantry with some very confidential friend, munching pickles, dipping into the meat-pie, and cackling with mirth. And in later days, what planning and executing, what surprises and disappointments, triumphs and failures have been witnessed there.

It was a proud, an exciting day, when for the first time the writer had a pantry of her own to arrange, and the new outfit of dishes and pans,

pots and kettles, knives and forks, and all the etceteras,—never forgetting those precious jars and cans that mother had sent,—were to be duly arranged. At home the preserves were always kept on the topmost shelf—why, we *perhaps* can not tell—so they must go there now, though we had to climb upon a chair, and lift until our arms ached to get them up. The glass ware and china for extra occasions occupied the next highest place, followed by the common dishes, and so on down to the kettles in the corner, and the coffee mill behind the door. It took a world of contriving and arranging before the final approving look was given, and then with an importance that none but a young housekeeper can know, the door was locked and the key safely put, we thought—we were sure—in our pocket, but alas! it never was found again, and that was the first but not the last vexation over the pantry. It were useless to speak of the intrusive ants that came in, no one knew how, to pepper the cake and spice the sugar; of the roaches that shot like little imps over the shelves and into their hiding places; and the provoking mice that played such tricks with our pastry, and with our nerves—these alas! have not all passed away.

I have learned one or two things in pantry experience valuable to me, perhaps to others. It should be large and airy. Time enough is wasted and dishes enough broken in a "cluttered" up little closet, to pay for the room needed, even if comfort and good temper are not counted. Anybody's nasal organs if at all sharp, will prove the necessity of free ventilation. The shelves should be movable, so that they may be taken down and scrubbed, and the wall behind them properly whitewashed. It is well to have them numbered by notches or otherwise, so that they can be readily replaced. Ants may be kept out by making the shelves of black-walnut. For mice we have found nothing equal to toasted cheese. They are very fond of it. The proper way to give it is in a small wire trap. A few doses, occasionally, will suffice. The roaches dislike hot water exceedingly, and it is said that elderberry bark, powdered finely and distributed about their haunts, will drive them away; I have not tried it. Cleanliness is a good preventive. Instead of placing the preserves on the top shelf and risking broken limbs and jars whenever they are wanted, I have found it better to have a locker or tight box made in one corner of the pantry, which can be securely closed. A few drawers, in which knives and forks, spoons, spices, etc., can be kept safely, are convenient. But more hereafter.

BETSEY.

My First Bread.

[Many lady readers of the *Agriculturist* will no doubt be forcibly reminded of their own first essays and failures in housekeeping—the remembrance of which, as in this case, may now excite a smile, but at the time, they were very *weighty* matters, especially the bread. Our fair correspondent thus tells her own story.—Ed.]

"Our first barrel of flour was the dearest we have ever used, though the prices now, are just double what they were when we commenced housekeeping. The first bread I made, had a streak through the center, about an inch wide, that cut like green cheese. How my spirits sank as I cut it for tea. It was too late to prepare anything that would take the place of bread. The only alternative was toasting; but it betrayed the making. You may judge what my feelings were as 'William' took the first slice, for I could not summon courage enough to pass it to him; but with the gentle courtesy of those first days of

married life, he said, 'do not be discouraged with the first effort, you will be more successful the next time.' How my heart thanked him for those kind words.

The next day I made my second attempt; this time I was determined to have it light. I put in an extra quantity of yeast; wet it up with so much water to so much flour, etc., according to rule, and set it by, to rise. I watched it carefully, and it began to look spongy and light. After letting it remain a while longer, I broke the surface to commence molding, when a pungent acid smell arose from it; but as I continued to mold it, it seemed to subside, and I felt encouraged that my bread would be palatable. Then came the baking, (but who ever baked bread nice and brown out of sour dough,) my oven was hot enough I was sure; but after an hour's watching and waiting, it showed no signs of browning, and was, though hard, of a pale livid hue; and that same sour smell greeted my nostrils as I turned one of the loaves from the pan. I gave up in tears. Vexed at my own ignorance and childishness, I determined to go to mother for advice, so I wiped off my tears and went home to tea, leaving a note for William to come and join me when he left business. While there I related to them my experience. Anna, my eldest sister, advised me to make biscuit the next day, and she would soon come and assist me, to make bread.

With a light heart I procured the materials for the biscuit, thinking I would surprise W., as I knew he was very fond of them. As I used sour milk, I recollected that I was to add saleratus until it was sweet, and the thought of the sour bread made me rather lavish of the alkali: I made up my cakes and baked them (you are laughing at me). I assure you I did not laugh when I took them from the oven. If my bread would not brown, these certainly had a livelier hue; for they were green, green as an olive. I betook myself to batter, and with the aid of eggs and milk succeeded in preparing quite an acceptable tea-table.

The next day Anna came to assist me, but I made my own bread, for I began to see, that we learn more by actual operation, than by dry rules or observation. So with Anna's experience and my own exertions I succeeded in placing upon my table for the first time, good, light, wholesome bread of my own making.

MARY C.

Woman's Wages.

[In October last, the following item was inserted to fill out a column: "We don't.—If any one knows why a woman should teach or do any other good work, for half what a man would receive for the same service, let him give the world the benefit of his knowledge: but if none can give a good reason for this disparity, then all should unite to remove it as injurious and unjust.".... This paragraph called out several communications, which we had no room for at the time. Some of them we laid by for future consideration, among which was the one below. We do not propose to throw open the gate for the admission of a rambling or lengthy discussion on the general subject of "Women's Rights," but a few brief, well-considered thoughts on the appropriate labors of woman, and especially the proper remuneration therefor, will not be out of place in these columns.—Ed.]

To the Editor of the *American Agriculturist*

There is a question, of your own propounding I conclude, in the last *Agriculturist*, which strikes me as lacking in knowledge of the world and the laws of society. You ask "why a woman should not have the same wages for doing the same work as a man!" Provided she does it as well, as I suppose you intended to be understood. Why, Sir, don't you see that if women were paid equally with men, there would be some chance for them to lay by something every year, so that after a time they could make a home for them-

selves, where and as they pleased; and don't you see what effect such a state of things might be supposed to have upon the health and spirits, the freedom from anxiety for that future, when ill health and age prevent earning a livelihood?

Then, too, another point of vital importance you must have overlooked. Not nearly as many men could get wives if women were sure of ease and competency, for I believe three-fifths of the women who marry after twenty-five, do so for a home and comfortable support. Too many of that number, alas, for a home and support *only*. Perhaps one-fifth of the remainder retain the heart of their girlhood, and marry because God gives them that crown and glory to their womanhood. The other one-fifth, because they have not forgotten the dreams of their teens, that "old maids are abominable." Why, what a revolution in society would be made, if your question was heeded and acted upon! There might be ten true marriages where there is one now, for poor mothers would not have to educate their daughters that they must marry to escape the toil and struggle which had been their portion; and girls of good sense and education could afford to wait for the twin soul of God's appointment, and not get discouraged after a few years of teaching or other labor, because only with their utmost exertions the claims of society as to dress and living, are met. Women *might* grow ambitious and worldly, too, if money accumulated in their hands, as *some* men do; or might have higher aims than bickering with help, or gossiping over Mr. —'s attentions to Miss Such-an-one, if money increased in their hands.

Then, what could a woman do with money in the same proportion as men? She does not always have a brother to send to college, or poor parents to help, perhaps, by paying off the mortgage on the farm, or an invalid mother to support altogether, or brothers and sisters, neices and nephews to help to an education, and on in the world. And then, the treasures of benevolent societies might uncomfortably overflow, and charities of all sorts be unpleasantly diminished, for I believe it is generally acknowledged that women are generous according to their means. But, possibly, wages equal to men's might change their nature to that of some men; in which case, the last-named danger would be averted.

Some poor girls struggle and toil for an education, as some poor men do, but don't you see that if they were able to pay for it by a few years teaching and preaching, as men do, they would be independent too soon; be able to have a home of their own, even if they did not marry; or to make comfortable, or perhaps luxurious, their childhood's home.

Then, if women earned more money, they might dress more, and more expensively, though I confess it would not be possible for some; but you know the extravagance of the women in dress is *all* the cause of the late hard times, and you can not wish to bring another such crisis upon our country. I have never yet seen the exact difference stated, between the personal expenses of young men and young women of about the same age and station in life. I wish some one would look into the subject, and give the statistics, including cigars and crinoline, jewelry and mint juleps, ices, champagne, dances and fast horses. I don't know how many of either sex spend less than all they can get, whether earned or begged from their "father," or "squeezed from the governor;" nor how many more men than women do more than take care of themselves, with what they get in either of the aforesaid ways.

I have said enough, I am sure, to convince you,

Mr. Editor, that your question, if heeded, might overturn the very foundations of society, and if you have not thought further upon the subject since you penned it, your active mind will now quickly see its revolutionary tendencies, from these imperfect suggestions.

A WOMAN.

South Lancaster, Pa., Oct., 1858.

For the American Agriculturist.
Dresses for Traveling, etc.

BY ANNA HOPE.

We are a nation of travelers—farmers as well as others. Families are so scattered by emigration, that if we were all keepers at home we should, many of us, be compelled to bid a last farewell to some that we love, long before they bid adieu to earth.

An appropriate dress for the road is of no small importance, although it need not be of any expensive material. It should be of some plain color, drab or brown, or any other that will not attract attention. Bright colors are entirely out of place. Many of the India silks are suitable for traveling dresses—so are merinos and delaines. There are at the present time a great variety of cheap goods made of worsted and linen, or of worsted and cotton, that answer well for this purpose. A dark gingham is not amiss.

A traveling dress should be simply made—the waist buttoned up to the throat, and the skirt without flounces. A cloak of the same material as the dress, is, in most cases, in good taste. A gray flannel cloak is never unsuitable. The bonnet should be as simple as the dress. A colored straw, with but little trimming, is in good taste; so are shirred bonnets of plain colors. White straws are objectionable only because they are so soon soiled by the dust. The coarse "Rough and Ready" is much the fashion. Dress bonnets should not be worn except on dress occasions. For gloves, I prefer the doe-skin gauntlet, or the undressed kid; lisle thread are the best of low-price gloves; avoid soiled light colored gloves. Wear a linen or Marseilles collar, or an embroidered cambric—not lace or muslin.

I have just taken a journey of several hundred miles, and have seen examples of various styles of dress, which were not all of them in the best taste. One young miss, not far advanced in her teens, traveled in a low-neck dress, as it was very easy to see when she removed her cloak for her greater comfort. Another wore a many-colored chenille shawl, with a straw bonnet profusely trimmed with a ribbon in which red was one of the colors. The face trimming was a bright rose-color and black, and the strings another shade of rose-color without the black—the rose-color itself was beautiful, but its proper effect was ruined by the red, and the different shade of the same color. Another was still more marked in her style. She displayed prodigious hoops, wore no collar, but did wear an immense bloomer hat streaming with blue ribbons. She was excessively deficient in beauty, and should not have attracted attention by a peculiar dress. In the seat back of me sat a very neat little woman, in a drab dress and cloak, wearing a straw bonnet, with the cleanest of quilled lace for a face trimming. Her dress displayed both good sense, and good taste; good sense is always an element in good taste.

It is well for ladies to provide themselves with a lunch, as it is otherwise impossible for them to be comfortable in the hurry and scramble of railroad traveling. I would also recommend them to take a small tumbler with them, as it is not particularly agreeable to drink after others, especially after the victims of tobacco.

May I not offer a hint to gentlemen, to which I

wish they would lend a listening ear. It is that they should leave their tobacco at home, and not bring it into the cars to annoy others. I pity the wives of these spitters, but as they were taken for worse, as well as better, perhaps there is no other way than to bear with them. I do not know a more disgusting practice than that of defiling cars, and public rooms, and private parlors even, in this way. If these men must chew, let them resort to the smoking car and enjoy their tobacco.

Medical Recipes.

Medical recipes to cure every imaginable ailment, incident to human or other animals, from a wart to the heaves, or horn ail, are received from different sources almost daily, but we seldom publish them, for many are nonsensical, others injurious, and few can be relied on. No doubt most of those who kindly furnish them fully believe in the efficacy of their remedies, but to be able to pronounce definitely upon the certain effects of any medicine in a specific case, requires knowledge and an experience obtained only by years of observation and practice. Two-thirds of the doses "warranted to cure," have originated in the mere notions of men to whom even the inward structure of an animal is an unknown mystery. So different, too, are the symptoms of the same disease in different individuals, that scarcely two cases can be successfully treated in the same manner. We are aware that almost every man can bring testimony of surprising cures effected by his favorite medicine, but we can not tell with certainty whether the result followed, by the aid, or in spite of the means used. As the aim has been to make the *Agriculturist* reliable in its teachings, so far as it does go, it has been deemed at least safe to exclude nearly all matter of this character which could not be vouched for with positive certainty.

BOYS & GIRLS' COLUMNS.



Grandmother and the Little Girls.

REPORTED BY COUSIN MARY.

DEAR MR. EDITOR:

I have been waiting a good while for an opportunity to tell you and all the *Agriculturist* Cousins, some of the good things that Grandmother has been talking about, since she has been at Uncle John's; but you have had so many other matters to print, that I supposed I couldn't get a word in "edge-wise." But if you can now find room, I will tell you what she said to us one afternoon,

ABOUT KEEPING OUR ROOMS IN ORDER.

"I tell you, girls, there's nothing I love to see more than a nice tidy room with everything in its place. If there's only a bed, a table and a chair in it, they ought to be set

right, and they'll look better than a room full of nice furniture put in any way and every way. I had a peep into a little girl's room the other day, and I could have laughed heartily, only I felt sorry to see one of my grand-daughters growing up with such bad habits. There was the bed pulled half way into the room, the clothes on it all tumbled about, and one pillow lying on the floor. On one of the bed-posts hung an old sun-bonnet, and on another a towel. The wash-stand was littered up with brushes and combs, and a large doll that looked as if it was trying to crawl behind the pitcher to get out of the way of the broom, which was lying with one end on the floor and the other over a chair near the stand, with a night cap on the top of it. The cat was asleep on a heap of clothes in the middle of the floor, and the candlestick, on a chair, served for a pin-cushion and comb-case. One edge of the carpet was turned up, the box for playthings was set upon a trunk, and everything in it, little chairs, dishes, rag-babies, and odds and ends were mixed up curiously enough. Everything looked as if it had run into the room in a great hurry to get out of a shower, or as if things had suddenly stopped in the middle of a game of blind man's buff.

When I talked with the little girl about it, she blushed and said 'she didn't think anybody would see it.' Now, my dear girls, I'm not so anxious to teach you to keep things in order because somebody will see them, but for your own sakes. You will see them—and you will find great comfort in keeping everything properly arranged. There's something in us that loves to see things in their places. How much more we enjoy a visit when we find the housekeeper has taken pains to put things all to rights. When I sit down in a room where a chair or a table is out of place, it seems all the time as if it was uneasy, and it makes me uneasy, and every person, even children, have something of this feeling, although they may not know exactly what causes it.

Let me help you a little with a plan for arranging your room so that it will be convenient and pleasant. There must be a bed in it of course, and it is of some consequence where it stands. Almost everybody puts it up in a corner, but I don't like that so well, unless room is scarce, because it makes unnecessary trouble to move it out every day in order to make it up nicely; and it is also difficult to sweep all the dust from under it, if one side is against the wall. If the floor is carpeted, the carpet is worn by pushing the bedstead back and forth over it, and if not, the floor is marked and scratched. The head of of the bed may be against the wall, and if it can be so arranged, I like to have the foot towards a window, so that when the morning light comes in it will wake me up early. We must be careful not to place the bed where a draught of air will pass over us; when asleep, for instance between an open door and the fire place, or a window on the opposite side of the room: bad colds are sometimes taken in this way.

There should be at least a strip of carpet to stand on while dressing, and if this is all, it should be laid down beside the bed. Neat rag carpet costs but little, and will add a great deal to the comfort of the room. The chairs, bureau, or trunk for clothes, and wash-stand, or dressing-table, should be arranged according to the size and form of the room. One chair will be wanted near the bed, to lay the clothes upon, and one near the window where it will be pleasant to sit and read or sew. The stand or dressing table, with the looking-glass over it, should also be placed near the window to afford plenty of light. Even a plain pine stand of rough boards may be made very nice by covering with white cotton cloth, or furniture calico. A little ruffle around the top edge is tasty. A curtain may be tacked around the edge to hang down and hide the rough legs of the stand, or shoes, or anything you may want out of sight. If there is no drawer in which to keep the combs and brushes, a little case of pasteboard, covered with fancy paper, may be made to set on the table, or hung against the wall near the looking-glass. If there is no closet in which to hang clothing, a strip of board with hooks made for the purpose, or smooth wooden pins, may be put up on one side of the room. This is much better than driving nails around here and there, because these disfigure the walls, and are also liable to tear the dresses hung on them. A sheet can be hung up between the dresses and the wall, and another over them to keep the dust out. There should be a box or shelves for the playthings, a nice place for books, and a basket or box for the sewing. When a girl has these things, she should learn to put every article in its proper place as soon as she has finished using it. It will soon become a habit to do so, and then it will be much easier as well as pleasanter than not to do it. Let all my little grand-daughters try it."

There, Mr. Editor, I guess I have told you all of grandmother's talk you will have room for in the next paper, but you may depend upon Mary for more if you want more.—[We do.—Ed.]

A naturalized citizen being asked why he left his native land, whether for want or not, replied: "Not for that, I had enough of that at home."



GRANDMOTHER AND CHILD.

(Engraved for the American Agriculturist.)

The Editor with his Young Readers.

Last month, p. 152, we gave a picture of one of the grandmothers of "Old England," who was teaching her little grand-daughter to sew. Here we have a charming picture of one of the grandmothers in Germany, away in the center of Europe—in "dem Vaterland," as our German friends love to call the home of their ancestors. We should like to get hold of the hand of the noble artist, MEYER, whose kind heart led him to choose for the subject of one of his master paintings so interesting a scene as the one we have here engraved. How much alike are these good old grandmothers, wherever we find them, whether in England or Germany, or here in our own land. Do not such pictures as these lead our young readers to appreciate and love their grand-parents more than ever? We hope so.

It would almost seem strange that we should ask our young readers whether any one of them has ever spoken unkindly to a grand-parent, and yet we once heard a little girl do so. The good old lady was worn down with care, and enfeebled with the weight of almost fourscore years, yet she devoted her whole remaining strength to a group of little ones. One afternoon she was knitting a pair of woolen shoes for "baby," and her ball chanced to drop from her lap, when a playful kitten rolled it off under the bed and she asked little Anna to get it for her. But Anna was engaged with her playthings, and her reply was: "I don't want to. I wish grandmother wouldn't stay here for I don't want to wait on her." The old lady looked sad a moment, but she tottered across the room, got a broom, and slowly bending down upon her knees brushed out the ball from under the bed. And so we suppose she kept on, year after year, slighted and ill-treated by those whom she loved. The fact was, she was a poor widow, while the parents of Anna were "well off," which made her feel very important. Little did she know how much pain she gave that good old lady by her careless treatment and neglect. We have felt badly a thousand times, as we have thought of that old lady stooping to get her ball of thread. We have not seen nor heard of Anna for several years, but we hope she has lived to repent of her unkindness. Are there any "Annas" among our young readers? We hope, and believe not. One word

more about our picture. Do you see how pleased the little fellow is, as he "paddles" in the wash bowl? Grandma had got out the water, and the soap you see on the table, to give him his morning wash; but he has got hold of the sponge, and his hands in the water, and now grandma is holding the bowl steadily so that he can not upset it. How roguish he looks, and how pleased she is to see his exploits!

Rub a dub, dub! Rub a dub, dub! What in the world is coming. Drums beating, bugles playing, colors flying, and guns and swords shining. Has the emperor of France sent his soldiers here to make war, or is it general training day? On they go, past our office window here, looking as gay, as bright coats, handsome caps, and ornamented weapons, can make them. It would be a rare sight for many of you to see these city soldiers. They do look handsome, and it is all the more pleasant to look at them, knowing that they are only on parade, that is, outshowing themselves, and not marching away to engage in bloody strife. Then, too, their music is very fine. It seems to wake every body up. Our men leave the office, and open the windows, to look out; laborers in the street stop for a few minutes to listen; even the cartmen's horses show their delight, by tossing their heads and prancing and snorting. How you would enjoy living here where you could see such fine sights almost every day. would you not? But not too fast, my little fellow. See all along the street the crowd of boys following the soldiers. And what looking boys they are. Poor little fellows! some without hats, very few with shoes and stockings, scarcely one with decent clothes, dirty and neglected, though they are naturally as bright and smart as any boys you can find. Some of them, very likely, were born in the country, but their parents thought best to leave its quiet scenes, to come and live where there was more to see, and, as they hoped, more money to be made. But they were unfortunate. The father was thrown out of employment, and having got into bad company, learned to drink, and neglected his family; the mother struggled along for a while, but at length sickened and died, and the poor little boy, once so happy in his country home, is now wandering in the streets without home or friends, beg-

ging for food when he is hungry, and sleeping in any corner where there is an old box, or wagon, to afford partial shelter. This is the sad history of thousands of such boys in this city. For a few years past benevolent individuals have spent much time and money in trying to help this neglected class; and they have found the best way to accomplish it, is to send them away into the country, to live with some kind farmer. Many have been sent thus, and are now in a fair way to grow up useful and happy. That was a very true saying, which somebody uttered a good many years ago: "God made the country, man made the town."

KEEPING PETS.

One of the pleasures of country life, especially for the young, is the care of pets. Children here have their favorites; sometimes a kitten or a bird, and occasionally a rabbit or a squirrel; but they all, except perhaps the kitten, seem to pine for their accustomed free life. We always feel sorry when we see the poor little things cooped up or caged, as they must be here in the crowded city. But most of you can have your lamb, or rabbit, or pony, or your chickens and doves, with plenty of room for them to feed and frisk, or fly and enjoy themselves, thus adding greatly to your enjoyment. We love to see children fond of pets. The care of dependent animals helps to keep young people gentle and kind; it cultivates the affections and they learn to love easily, which is a most desirable accomplishment. When we see a boy fond of tormenting animals, by beating or stoning, or playing tricks upon them, we find it very hard to like him. He is injuring himself, as well as giving needless pain to the poor brutes. He is getting habits of cruelty and malice, which if unchecked, will make him an outlaw among his fellows. To love and be loved, is the great source of happiness; such a boy is surely preparing for a miserable life.

ABOUT BUGS.

Many of our young friends seem to have a particular spite against bugs of all sorts. The girls, especially, look upon them as frightful little monsters, and if one happens to fall upon them, or to crawl quite near them, they are ready to scream and run, and sometimes almost to faint. We have seen a whole room full of young ladies in great commotion, because a large beetle had found his way into their company. The boys, though less afraid of bugs, too often consider them as made expressly to be tormented and killed. We suppose this arises from the notion people have, that every odd looking creature is necessarily hurtful. The toad, for example, was for a long time considered poisonous, merely, no doubt, from his looks; for he is really a very useful little fellow, if he has such a homely jacket. In the garden one toad eats a host of noxious insects. If you will take pains this summer to watch the movements of the various insects you may find, it will afford you much greater pleasure than to destroy them. By learning their habits, you will become so interested in them, as to overcome much of the prejudice that now makes them unpleasant to look upon. Many of them, no doubt, are injurious to fruits and vegetables. These should be ascertained and destroyed; but others, instead of being noxious to man, actually feed upon things which are injurious, and thus are our friends: as for instance the Tiger Beetle, which preys upon caterpillars, and the pretty little Lady Bug, which devours the troublesome plant-lice. It would be interesting to you to see how many different kinds of bugs and insects you could collect this season. They may be found in almost every situation, at almost every time of the day, and indeed some must be hunted in the night time. They can be easily put to death by dropping them into a vial of alcohol or whisky, and then a pin may be run through them to fasten them upon a white card. Butterflies and moths are best disposed of by shuffling them in a tight box with a sponge containing a little ether, or chloroform, which soon puts them to rest very quietly, without pain, and without injury to their delicate plumage.

As new specimens are obtained, it will greatly add to the pleasure, to look through some book describing insects, to find their names, and write them upon the card. Such a book will also aid in observing their habits. It is in this way that the most eminent naturalists have commenced their labors, and though you may not become as famous as they have, you will find that bug-hunting will afford as good sport, and much more instruction, than catching fish and shooting birds.

The girls, too, can share in this pleasure. They can not only prepare specimens, but, if they will select the colored wings and smooth shining shells of different varieties of insects, they can with a little pasteboard, gum, and varnish, by the exercise of taste and ingenuity, make fancy boxes that will be far more beautiful than any which the fancy stores can furnish. Who will make the largest collection and the prettiest piece of fancy work in this way, the present year? Let us hear how you progress, when you have fairly commenced your cabinet—we don't mean long descriptive letters, with three or four pages of detail, but simply how you get on.

PROBLEMS.—The illustrated *rebus* No. 19, given last month, appears to have been a "poser," since only one (T. F. Allen,) has sent us a correct reading of it. We'll leave the solution over a month for others to try..... The shoemaker, in riddle No. 38, is a blachsmith, who makes horse-shoes. Rightly guessed by R. E. Flickinger; Daniel Metz; B. L. Elmendorf; G. H. Witthaus; and D. W. Spicer..... We will give a new puzzle this month, viz:

NO. 40—A LABYRINTH.

This is a capital one, for which we are indebted to Aunt Sue's Book of Puzzles, through the kindness of H. D. Woodworth. The puzzle is, to get from outside to the pleasant summer-house in the centre, without jumping over any of the fences, which is strictly prohibited. It can be done—we have tried it, and know. If it bothers you as much as it did us, you'll have some fun over it. You will find a nice cool bower when you get in. You have only to—ah! we like to have told you how to get there, which would have spoiled the fun. This will suggest others which you can construct to amuse your playmates.

COME THIS WAY FATHER."

[The little sketch "Steer straight to me, Father," published last month, p. 152, touched many hearts, as it did our own. Among the responses received is one from B. O. Titus, Hunterdon Co., N. J., enclosing on a printed slip the following poetry founded on the same incident. The writer is unknown. Mr. T., says he has had it in his possession several years. We are glad to preserve it longer, stereotyped in these columns.—Ed.]

I remember a voice which once guided my way
When, lost on the sea, fog-enshrouded I lay;
'Twas the voice of a child, as he stood on the shore—
It sounded out clear o'er the dark billow's roar—
"Come this way, my father! steer straight for me;
Here, safe on the shore. I am waiting for thee!"

I remember that voice 'midst rocks and through breakers
And high dashing spray; how sweet to my heart
Did it sound from the shore, as it echoed out clear
O'er the dark billow's roar—"Come this way my father!
Steer straight for me; here safe on the shore
I am waiting for thee!"

I remember my joy when I held to my breast
The form of that dear one, and soothed it to rest;
For the tones of my child—"I called you, dear father
And knew you would hear the voice of your darling
Far o'er the dark sea, while safe on the shore
I was waiting for thee!"

That voice is now hushed which then guided my way;
The form I then pressed is now mingled with clay;
But the tones of my child still sound in my ear—
"I am calling you, father!—O, can you not hear
The voice of your darling as you toss on life's sea?
For on a bright shore I am waiting for thee!"

I remember that voice; in many a lone hour
It speaks to my heart, with fresh beauty and power,
And still echoes far out o'er life's troubled wave,
And sounds from loved lips that lie in the grave—
"Come this way, my father! O, steer straight for me!
Here safely in Heaven I am waiting for thee."

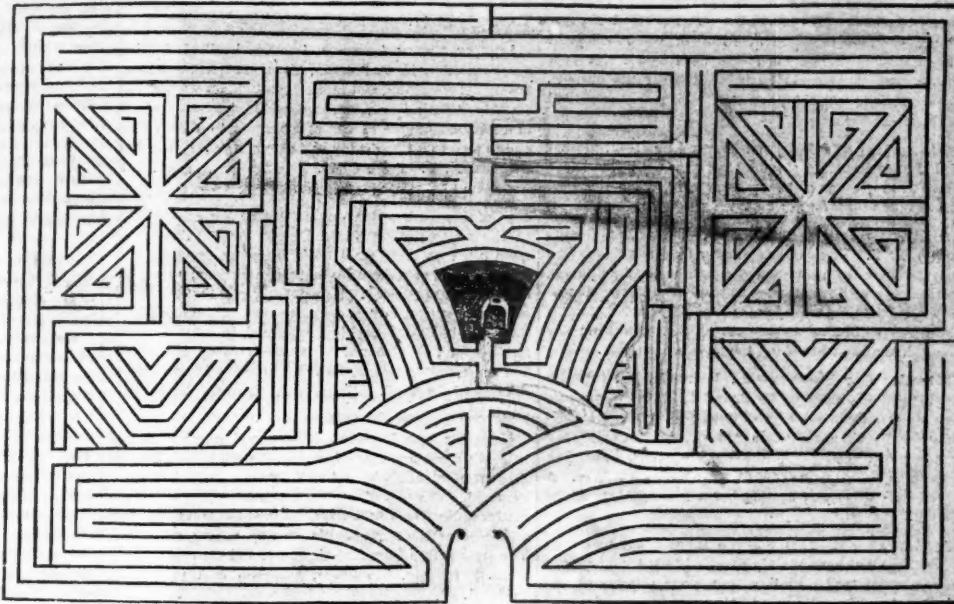


Into which are thrown all sorts of paragraphs—such as Notes and Replies to Correspondents, with Useful or interesting Extracts from their Letters, together with Gleanings of various kinds from various sources.

Supports for Peas.—N. J. Downey, Franklin Co., N. Y. Brush is generally used as being most convenient, but any thing that will afford them support will answer equally well. Stakes set along the rows with twine passing between them, are neater and more convenient.

Bene Plant for Bees.—H. H. W. Sigourney, Norfolk Co., Mass., sends us an extract from a paper, stating that oil-cake from the seeds of the Bene Plant (*Sesamum Orientale*), furnishes an unequalled food for bees. This may be true, but it needs confirmation. It could not however be made very available in this latitude, as the Bene plant requires a temperature equal to that necessary to raise cotton. We have tried to raise it two seasons, but with no success so far.

Trimming Melon Vines.—Major J. Baker,



No. 40—A LABYRINTH—GO FROM THE ENTRANCE TO THE CENTRAL BOWER WITHOUT CROSSING A LINE

Perry Co., Pa. It is a good plan to pinch out the middle eye from vines when the runners have extended two or three feet. This causes a more vigorous growth of the side branches on which the fruit is produced, and also keeps the vine within proper bounds.

Squashes kept two Years.—Samuel T. Taber, of Queens Co., L. I., informs us (May 5th) that he has in his cellar, some squashes raised in 1857, which are still as sound as when first grown. The variety resembles the Winter crook-neck, is long and rather slim, with a bulb at the end. The squashes are light-colored and the skin quite tender. They make very good pies.

Large Asparagus—How it was Raised.—A gentleman whose name we did not learn, exhibited at our office a few days since, specimens of Asparagus that we think hard to beat. The bunch was 18 inches in circumference contained 18 stalks, 8½ inches long, and weighed 3½ lbs.; several stalks each measured 1½ inches in diameter. It was of the common variety, raised by Daniel K. Jones, for Daniel Smith, Mattinecock, L. I. We inquired after the peculiar management by which such stalks were grown, and were told that the bed was arranged, so that as each stalk came up it had a tuft of horse manure on its head!—which explained the whole matter satisfactorily.

How to Propagate Osage Orange.—H. A. Baily, Lincoln Co., Mo.: It is hardly practicable to propagate the Osage Orange from cuttings. They may be layered, but the best way is to raise from seed.

Raspberry Vines dying in Spring.—"Medford," Middlesex Co., Mass., writes that his raspberry vines of all kinds were covered with earth during the Winter, and upon exposing them this Spring they looked thrifty; but in a few days the bark peeled off and they have since died. He enquires for the cause. They were probably buried too deep, and were smothered. An inch of earth will afford ample protection. Even straw spread over them and kept in its place will be sufficient.

When do Bark Lice Hatch?—E. P. Van Alen, Green Co., Pa. In this latitude they appear and commence their depredations about the first of June, which is the best time to destroy them, by washing and rubbing the trees with a mixture of one part soft soap to two parts water.

Rust on Oats.—P. F. Gould, Humphrey Co., Tenn. This blight is a species of minute parasite plant, forming a fungus growth on the stalk, and drawing its nourishment from the juices of the plant. No preventive that we know of, has been discovered. Its prevalence seems to depend mainly upon the weather favorable to its growth, long continued heat and dampness are often followed by its development.

Mildew on Roses.—E. Baker, Alleghany Co., Pa.: Powdered sulphur, dusted on the bushes a few times has been found efficacious.

Journey of a Bank Note.—The history of a Bank Note would be curious and interesting if it were possible to write it out. We have a very simple system in use in our office by which, with the slightest possible

trouble, we are able to know every bank bill passing through our hands, and we can with certainty tell exactly from whom any bill came, with the date of its reception, etc. Very often the same bill returns annually, each time from a very different section of the country, and not unfrequently one comes back the same year. Here is an interesting example. April 14th a bill on the Bank of Pike Co., Ill., came in from a subscriber in Wisconsin, and was paid out in the usual course of business. April 30, the same bill came again from a subscriber in Galesburg, Ill. How many hands it passed through in two weeks we can not tell. Not long since a counterfeit bill was received from Western Conn. It was returned and a good bill promptly sent for it. A little while after the same bill came for a subscription from Eastern Massachusetts. Another bill came from Maine for a subscription, and not long after it was again received for the same purpose from Iowa. Hundreds of other bills make similar journeyings.

Is the Fountain Pine Hardy.—E. D. Entworth, Oneida Co., N. Y.: It has not been sufficiently tested in this latitude to decide the question. It originated in Mexico, and but few specimens have been transplanted to this country. The chances are somewhat against its hardiness. The seed can not be procured here that we are aware of.

Shall we kill Sap Suckers? asks "Young Agriculturist" from Ohio. We suspect he means the Woodpecker that is seen so busily tapping the trunks and limbs of apple-trees. He does this, not as the name given him would indicate, to feed upon the sap, but in his search for the destructive borer, which is such a pest in the orchard. We answer, shoot him by all means if the worms are greater favorites, and you are willing to give them the benefit of your fruit trees. If not, then let him work, and if he does occasionally mar a limb, he will prevent a hundred fold more injury by the destructive borers.

Grubs in the backs of Cattle.—Wm. Rouse, Stone Mills. These are larva hatched out from eggs deposited by the Gad fly (*Gastrophilus bovi*) beneath the skin of the animal during the Summer. The cattle dread their attacks, and when stung by them in the act of depositing their eggs, are often seen to gallop wildly around the pasture. When the grubs are found, they may be extracted by pressing on each side of the tumor with the finger and the back of a knife.

Crops for Solting.—E. J. Maxwell, Dauphin Co., Pa: Sweet Corn sown at intervals, is a very good crop for solting. Clover and Lucerne, Sorghum, and the various kinds of Millett, are also used.

How to become a Farmer.—E. H. J. Rensselaer Co., N. Y. Books and papers, however good, are not alone sufficient to perfect a good farmer. One must have practical as well as theoretical knowledge. Go into the country, arrange with some successful farmer to work under instructions, learn to plow and hoe, to reap and mow; keep one eye on nature and the other on books, and then if it's in you to be a successful farmer, it will come out.

Does Pernvian Guano exhaust the Soil?—Col. David Morely, of Westfield, Mass., reports the

following results of an experiment made with guano, on 7 acres of poor sandy land. Corn was planted 3 years successively, and manured with 1 ton of guano each year. The product in shelled corn was as follows. 1st year 205 bushels. 2d year 223 bushels. 3d year 244 bushels. Then Rye followed, the product of which was estimated at 15 bushels per acre.

Cleaning off Broom Corn Seed.—J. Mather of N. J., recommends standing the corn with the heads through the palings of the poultry yard, when the seed will be taken off "free of cost."

A Pump in the House.—Subscriber, Oneida Co., (1) N. Y. You can bring water from a well 125 feet from the house by a common pump placed in the kitchen, provided the well is not over 25 to 28 feet deep. It will be necessary to have the joints of the pipe perfectly tight. The water will be as wholesome as if drawn from the well unless allowed to stand too long in lead pipe.

Blocks for Doors.—M. Utica, N. Y., suggests that instead of a block on the floor behind the door to prevent marring the wall, as recommended in the *Agriculturist* for March, a porcelain knob be screwed into the base board at the right spot to stop the door. This is a more tasteful arrangement, but more expensive also. A turned mahogany pin, costing but a few cents, is pretty enough.

A Humbug.—J. D. S.—We thought our views as to humbugs had been plainly expressed—but you cannot so have understood. Plainly then, your scheme of entrapping men of small means into the purchase of shares in your "United Improvement Organization," is a humbug of the tallest and meanest kind, in which we shall have no hand, except to expose it, if carried further. Do you understand now?

Publishing the Price of Articles Advertised.—W. Samson, Osseo, Minnesota, suggests that advertisers would confer a great favor on the public by affixing the prices to the articles advertised, where this is practicable. It would certainly save the necessity of many letters of inquiry, and do much to relieve our own overburdened correspondence.

Yankee all Round.—A subscriber, who says he is of Yankee descent, (he need not have written this,) asks us several questions in this wise: "Where and how were you brought up?" "Did you receive a College education?" etc. He wishes us to exhibit our likeness to our subscribers, with a sketch of our past life. Yankee-like, we answer by asking: "Do we talk like one who is only a collegian? Does it appear as if we were raised in one spot?" For our likeness, we refer him to the past volumes of the *Agriculturist*, where he will find us spread out on paper—not full length, but considerable. We will give a direct reply to one question, however, "How were we brought up?" Answer—"By hand, (our own—on a farm.)"

NEW AND VALUABLE BOOKS.

[Any books noticed in these columns, or any other good book, we shall be happy to send post-paid, to any of our readers who can not conveniently get them elsewhere, if they send us the regular retail price. The discount usually allowed us by publishers about pays the expense of postage, procuring and forwarding.]

AMERICAN WEEDS AND USEFUL PLANTS, by Wm. Darlington, revised and extended by Prof. Geo. Thurber. We ought to have announced this valuable work sooner, but we have been waiting leisure to do full justice to its claims, for we consider it one of the most important agricultural books issued. We hope soon to give a further notice and an extract to show its character. Suffice it now to say that we have in this work a very complete description of those weeds of this country which merit the notice or require the attention of American farmers. The work also describes most kinds of useful plants. It contains 277 illustrations of plants or parts of plants. A. O. Moore & Co., New-York. Price \$1.50.

LANGSTROTH'S HIVE AND HONEY BEE.—This work we have formerly commended highly. It savors somewhat of az-grinding in its special commendation of the author's patent hive, but aside from this it contains a great amount of both valuable and interesting information, and is worthy of general use. We are glad to announce a new edition which is a decided improvement upon the former one in several respects. The price is also reduced to \$1.25. It is now published by A. O. Moore & Co., New-York.

FARM DRAINAGE.—By Henry F. French, Esq. We can do no more now than merely to announce this work—the first really American book on one of the most important subjects connected with agriculture. Judge French deserves many thanks for this effort to set forth in a clear light, the value of thorough drainage, including the principles involved, and the details of practical operations. We advise every cultivator to do, as we intend to do,

read the work through carefully. A. O. Moore, New-York. Price \$1.

LIFE OF NORTH AMERICAN INSECTS, by Prof. B. Jaeger, assisted by H. C. Preston, M. D. This work although not highly scientific, and in some particulars we have observed not entirely correct, is valuable because written in a style calculated to attract attention to the subject, and to lead to further study and observation. Harper & Brother, N. Y. Price \$1.25.

MRS. CROWEN'S SYSTEM OF COOKERY.—We received a copy of this work which was submitted for examination to the appropriate "Home Department." The report upon it is: A very good book in many respects, containing much valuable information, expressed in a plain common sense manner. Its chief defect is that too much seasoning, spices, butter, eggs, etc., are recommended, for the plain, healthful cooking, practiced in most farmers' families, and that should be in use in every household. The book, on the whole, is to be commended as one of the best of its kind. Thomas J. Crowen, New-York. Price \$1.

MOTHERS AND INFANTS, Nurses and nursing, is the title of a work translated from the French by Dr. Donne. The art of "tending baby" well is very imperfectly understood. The aim of this work is to give instruction on matters quite likely to be overlooked by the inexperienced, and most of the suggestions display very good sense. The style is free from technicalities, and well adapted to general readers. Phillips, Sampson & Co., Boston. Price \$1.

THE MUSICAL GUEST, edited by Henry C. Watson, contains fine selections from standard music which would otherwise cost a large sum. These are here given at prices which place them in reach of persons of very moderate means. In addition to the weekly publication containing 12 pages, a monthly part containing Sacred Music only is issued, also a monthly number devoted to Operatic Music. M. Bell & Co., New-York. Weekly, \$5 per year; Monthly, \$3.

Written for the American Agriculturist.—Prize Articles.

The Dairy...VI.

[The following general remarks on Butter making came to hand after the preceding pages were stereotyped. The regular chapter on cheese will appear in its appropriate place next month.—Ed.]

We have summoned up the various acquirements constituting a good little dairy thus far. We have arrived at putting it well packed in tubs for market; and a few concluding general remarks will not be inappropriate before going to cheese-making. In one of my first articles I spoke of western butter as frequently selling for "grease" in the New-York markets, which provoked the ire of one of your Wisconsin correspondents in reply. He did not, however, deny the fact—but the necessity of the fact: that as good butter can be made from the wild grasses of the new prairies, or oak openings as elsewhere. I shall not go into a controversy on the subject, but for the present suggest to my ardent friend that he sell his butter at home for immediate consumption, where I have no doubt it will be well appreciated as a good article—if not kept too long. The chief difficulty in such butter, made on soils either old or new, not naturally fitted in its various requirements of soil, water, climate, grass, etc., is not that the butter when made by experienced and careful dairy hands is bad, but its keeping, or preserving quality is lacking: and that, not from the want of skill, management, or neatness in any part of the process, but simply for the want of the proper constituents of long keeping butter in the milk from which it is made.

We know many neighborhoods where the butter made for a ready market is unsurpassed in sweetness and flavor, if used within a few weeks after making, but it will not keep sweet for three months, and all the skill in the world will not make it so. There are other districts of country where under much less inviting appearance of soil, climate, and general condition, the butter made in it will keep one to two years, and even longer, and no more skillfully manufactured than the other. I mention these facts as entitled to the very highest consideration to those about to embark in the butter dairy business. First, the readiness of the market is to be considered. Next, the suitability of the soil, grasses, and climate for the long keeping of the butter. If the soil, and grasses will make good butter, even if it will not keep longer than a month, and a ready market is at hand for it, no matter. The business may be pursued with advantage. But if that immediate market is not at hand, by no means attempt butter making on any but such soils, clothed with such grasses, and in such a climate, as has been described.

For a century past, and at the present day, "Goshen" butter in the New-York market had, and still has a name the very sound of which makes the mouth, not only of the

epicure, but of every good housekeeper, "water." Let us examine this "Goshen" butter. The town of Goshen is a pleasantly situated interior village near the center of Orange County, in N. Y. State, about sixty miles on the Erie Railroad, from the city. It is of some local importance, being the half-shire town of the county, and a place of considerable wealth, and high respectability, in its inhabitants. For a great many years it has been the principal butter center of the neighboring country, noted ever since its settlement for the excellence in quality, and the high price obtained for the article, and supposed by those not familiar with the butter trade as, *all of it*, the produce of "Orange" County, as it no doubt was once, but so no longer. The butter gave Goshen its celebrity, and Orange County its popularity in that connection. But, as the contiguous Counties lying indefinitely west, and north, were brought into cultivation, and made butter of equal quality, whether it came to New-York, by the way of Goshen, or Newburgh, on the river—its co-trader in the butter line, as well as co-sharer in the counts of the County—or even Catskill, still further up, it was all "Orange," or "Goshen" butter, and none of its consumers, by taste, knew the difference. And so it is now. The "southern tier" counties in New-York, west of Orange, make two-thirds of the "Goshen" butter of the New-York and other sea-coast markets, and a great majority of the balance is made in the five dairy counties lying north of the line of the N. Y. Central Railroad. The "land of Goshen" with its sweet grasses, pure water, and fine elevation first gave name and celebrity to the article, while the equally fine lands of the other dairy districts of the State have produced in succession, and do still produce the same article in quality and reputation, as well as market value—all Goshen butter. So "branded."

All this proves the fact distinctly with which I first started, viz.: that superior dairy districts must have their own peculiar soils, grasses, nature and climate, and without which the best article can not be made. No amount of skill applied on unsuitable soils, and locations can compensate for natural defects. A better illustration of the difference in the quality of butter can not be named than in the fact that our Government Navy has been for many years partially supplied, for its long cruises, with Irish butter under the name of "Irish rose," from the fact of a rose being stamped on its packages by a celebrated dealer in the article at one of the Irish seaports. It excelled for its keeping qualities, but in nothing else, our best butter. And even for keeping it is now equalled, if not exceeded, by the butter made in our own New-York Counties. Not getting a supply of foreign butter, our Navy contractors have resorted to the "Goshen" butter, insisting, however, by "certificate," that it must be "Goshen," and of "Orange" County production solely—not knowing that "by that name" they were buying two pounds of Broome, or Chemung butter to one of Orange—yet quite as good in every particular. By a report which we have noticed in one of the volumes of Transactions of the N. Y. State Agricultural Society, I have ascertained that a parcel of Broome County butter after going on a whaling voyage of four years was as sweet as ever!

I have spoken more particularly of the dairy Counties of New-York for butter making, than of other States within the great American dairy district defined in my first, or January article, because they comprise a larger and more compact territory than the dairy Counties of any other State. Yet the remarks on their production will apply equally well to all the dairy regions of other States. New-England consumes all its own butter, besides large quantities from elsewhere, and is probably equal in its tasting—if not long keeping quality to any other. So with northern New-Jersey, northern Pennsylvania, and north-eastern Ohio—the latter, however, more famous for its excellent cheese. Much northern Pennsylvania butter, particularly that near the Erie Railroad goes to market as pure "Goshen," with the "Southern tier" butter of New-York.

We might, in further illustration of the value of our butter making interests, go into a relation of the amount of capital invested in its production, of land, cows, labor, and other appendages, the extent of which would surprise some of our readers, and show its importance as contrasted, or compared with some of our main agricultural pursuits. But such is hardly necessary here. A little consideration, however, will show the vast importance of selection in the right soils, climates, and localities, as well as the employment of the best skill in butter making, by the market value of the article when made. Thirty-five cents a pound is frequently the *keg* price of the best butter in the New-York market. Eight or ten cents is quite as frequently the value of poor (grease) butter in the same market!

The milk, labor, and marketing of the best, cost little if any more than that of the worst, and the difference in selling value is three hundred and fifty per cent.

As to the productive value of our butter dairies, in their proper localities, no branch of our agriculture is more profitable for the amount of capital invested. The whole

system is a simple one, requiring only ordinary intelligence, diligent attention, active and well applied labor, in its season—yet, rigid method, and well practiced economy. The very simplicity of its operations renders it easy of pursuit, while the system, economy, and industry it demands give active thought to the mind equally with that of any other agricultural pursuit. The improvements of the land occupied by our dairies with their increasing value as they shall become more thoroughly occupied, and the best means of augmenting their production will become more the study of our dairymen than now, and the time is not distant when they will assume a much higher consideration in American agriculture than they yet have done. Such, however, belongs properly to another branch of the subject than what I have intended in these articles.

One item of remark in relation to the butter producing capacity of milk escaped me when treating of cows, which I will here supply, viz.: Some cows excel in producing cheese milk, which are decidedly deficient in creamy milk. That is—their milk runs heavily to curd, when it will give not half the usual average of cream. It is hardly worth while to say that such cows should be at once transferred from the butter to the cheese dairy. On a strict examination of the milk of cows in cheese or butter quality much depends on their relative value for one or the other.

Rates of Wages in New-York City.

We are continually receiving inquiries as to chances for employment in this city, from those who seem to have formed the opinion, that to once obtain a situation in the city, is to get upon the high road to wealth. To such we would say that, in proportion to the number of inhabitants, fewer people get rich here, than in the country. There are a few fortunes acquired here by energy or good luck; so there are in the country. Proportionally, more men get rich by the accidental rise of land, than by commercial transactions. But this point we will not discuss now. To show what are the chances for employment here, and to give some idea of the remuneration received (saying nothing of the great expense of living), we print below the current rates of wages and the demand, as made up by the *Journal of Industry*. The figures may not be exact in all cases, but they are near enough so, for all practical purposes.

Artificial flower makers, \$3 to \$6 per week; good hands in request.

Bakers, \$5 to \$14 per week; no demand.
Bakers' boys, \$3 to \$5 per week; no demand.
Barbers, \$6 to \$8 per week; no demand.
Bedstead-makers, \$8 per week; no demand.
Blacksmiths, \$9 per week; no demand.
Boat-builders, \$10 per week; no demand.
Book-keepers, \$100 to \$2,000 per year; supply over demand.

Book-binders, \$6 to \$12 per week; demand for good hands.

Book-binders' boys, \$2 to \$5 per week; no demand.

Book folders, \$3 to \$6 per week; no demand.

Brass founders, \$12 to \$18 per week; supply equal to demand.

Brewers, \$8 per week; no demand.

Brush makers, \$8 to \$15 per week; moderate demand.

Builders, \$9 per week; no demand.

Butchers, \$8 to \$10 per week; no demand.

Cabinet-makers, \$7 to \$10 per week; no demand.

Cap-makers, \$3 to \$4 per week; no demand.

Carpenters, \$7 to \$10 per week; demand moderate.

Carpenters' boys, \$3 to \$6 per week; no demand.

Confectioners, \$10 to \$12 per week; no demand.

Coppers, \$12 per week; no demand.

Coppersmiths, \$9 to \$12 per week; no demand.

Designers, \$15 to \$25 per week; no demand.

Dress-makers, \$4 to \$8 per week; supply over demand.

Engineers, \$10 to \$30 per week; no demand.

Engravers, \$10 to \$20 per week; no demand.

Faucet-makers, \$8 to \$12 per week; no demand.

Farm servants, \$6 to \$10 per month; market opening.

Female domestics, \$5 to \$8 per month; supply over demand, but good ones in request.

Female domestics (hotel cooks), \$12 to 18 per month; demand good.

Founders, iron, \$10 to \$12 per week; no demand.

Frame-makers, \$9 to \$10 per week; no demand.

Furriers, \$6 to \$12; moderate demand.

Gardeners, \$7 to \$8 per week; moderate demand.

Gas-fitters, \$7 to \$15 per week; no demand.

Gilders, \$10 to \$12 per week; demand moderate for good hands.

Gunsmiths, \$9 to \$12 per week; no demand.

Glass cutters, \$9 to \$12 per week; demand moderate.

Hatters, piece work, \$4.50 per dozen; plenty of work.

Laborers, \$6 to \$8 per month; market glutted.

Last-makers, \$12 per week; no demand.

Last-makers' boys, \$4 per week; no demand.

Lithographers, \$12 to \$30 per week; supply equal to demand.

Lock makers, \$9 to \$15 per week; demand for good hands.

Machinists, \$6 to \$10 per week, no demand.

Marble-workers (artisans), \$12 to \$15 per week; demand moderate.

Marble-workers (laborers), \$4 to \$7 per week; no demand.

Masons, \$9 to \$12 per week; supply equal to demand.

Milliners, \$3 to \$6 per week; no demand.

Musicians, \$5 to \$8 per week; no demand.

Nail-makers, \$8 to \$9 per week; no demand.

Nurserymen, \$6 to \$12 per week; demand moderate.

Operators on sewing machines, \$5 to \$6 per week; demand moderate.

Packing box-makers, \$7 to \$10 per week; no demand.

Painters, \$8 to \$10 per week; moderate demand.

Paper-box-makers, \$7 to \$10 per week; no demand.

Paper-hangers, \$8 to \$20 per week; demand moderate.

Paper-makers, \$7 to \$10 per week; demand good for experienced hands.

Paper-makers' boys, \$3 to \$4 per week; no demand.

Paper-makers' women, \$3 to \$5 per week; demand moderate.

Paper-makers' girls, \$1.50 to \$2.50 per week; demand moderate.

Paper-rulers, \$10 to \$11 per week; no demand.

Piano-makers, \$9 to \$12 per week; no demand.

Plasterers, \$8 to \$12 per week; supply equal to demand.

Plumbers, \$9 to \$12 per week; supply equal to demand.

Pocket-book-makers, \$10 per week; no demand.

Porters, \$5 to \$8 per week; supply equal to demand.

Printers, \$11 to \$12 per week; demand good for first-class hands.

Pump-makers, \$6 per week; no demand.

Rail-fitters, \$6 to \$10 per week; no demand.

Sole-makers, \$12 per week; no demand.

Saddlers, \$6 to \$10 per week; no demand.

Seal Engravers, \$0 to \$12 per week; no demand.

Seagrass-makers, \$8 to \$10 per week; no demand.

Market Review, Weather Notes, &c.

AMERICAN AGRICULTURIST OFFICE,
New York, Thursday Evening, May 19, 1859.

The Flour market has been decidedly brisk since our last review, and has been much excited within the past two weeks. Influenced to some extent by the very light current receipts from the country as well as by the favorable commercial accounts from Liverpool, but still more by the war news from Europe—the demand has largely increased, especially from speculators—and prices have rapidly advanced. As will be seen by the table of prices given below, the rise in Flour since our last review, has been, on the several grades, from 75c. to \$1 10 per barrel, carrying up with it Wheat, Corn, and other grains. The supply of Breadstuffs in the hands of New-York receivers has been very materially reduced by the large sales during the month. The amount to arrive from the interior, before the new crop, will most probably be very light. Apart from a brisk speculative demand, the regular trade have also been buying freely, as they appeared to have dreaded a further rise. Within a day or two there has been less activity apparent. Speculators are not quite so much disposed to move freely, until they shall have received further advices from Europe. Just now the demand from the regular trade is fair, though not brisk. Most holders meet the requirements of buyers readily, in the main, at our quoted prices. In some instances, lower rates have been accepted. Though no general decline has been reported, the tendency at present is obviously in favor of purchasers, especially in inferior and common qualities.

Wheat has been briskly inquired for at decidedly better prices. The influences which have so favorably affected the market for Flour—and the rapid improvement in Flour itself—have induced buyers to purchase Wheat more freely, and encouraged them to pay from 20c. to 30c. per bushel more, for desirable lots, than a month ago.

Corn has been more sought after, and has rapidly advanced say 12c. per bushel, on the average—the supply is quite moderate. Rye and Oats are also in demand, and are dearer. Barley has not varied remarkably.

The movements in Provisions have been very extensive. The speculative demand has been very brisk. The inquiry from the trade has also been good. Prices of the principal kinds have advanced materially, as noted below.

Cotton has been very dull, and prices have declined. The war news has had the effect of altogether checking purchases on speculation and for shipment. The available supply here is 80,481 bales, against 70,800 bales same time in 1858. The receipts at all the shipping ports to latest dates, this season, have been 3,505,410 bales, against 2,779,759 bales to the corresponding period of last season.

The total exports from the United States, so far this season, have been 2,463,135 bales, against 1,939,582 bales to the same date last season. The total stock on hand and on shipboard in the shipping ports at the latest dates was 514,750 bales, against 606,255 bales at the same time last year—that is 91,502 less now than last year. The stock in the interior towns at the latest dates was 94,117 bales, against 67,903 bales at the corresponding date a year ago.

Hay, Hops and Seeds have been in fair demand. Rice has been more sought after at much improved prices. Tobacco and Wool have been in rather slack demand at easier rates. Other branches of the Produce Trade have exhibited no very remarkable changes.

CURRENT WHOLESALE PRICES.

	April 22.	May 12.
Flour—Superior to Extra	\$5 15 @ 6 40	\$5 10 @ 6 70
Common to Fancy Western	5 15 @ 5 85	5 20 @ 7 30
Extra Western	6 00 @ 9 00	7 35 @ 10 00
Fancy to Extra Genesee	6 75 @ 8 50	7 60 @ 9 50
Mixed to Extra Southern	6 05 @ 8 75	7 40 @ 10 00
Rye Flour—Fine and Super	5 65 @ 4 45	4 35 @ 6 10
CORN MEAL	3 90 @ 4 25	4 30 @ 4 75
WHEAT—Canada White	1 50 @ 1 70	None offering.
Western White	1 50 @ 1 80	1 80 @ 2 10
Southern White	1 45 @ 1 75	1 80 @ 2 10
All kinds of Red	55 @ 1 50	1 00 @ 1 95

	April 22.	May 12.
CORN—Yellow	83 @ 88	86 @ 90
White	85 @ 88	86 @ 90
Mixed	83 1/2 @ 85	85 @ 88
OATS—Western	57 @ 59	61 @ 62 1/2
State	52 @ 55	54 @ 56
Southern	46 @ 52	50 @ 56
RYE	60 @ 64	62 1/2 @ 68
HARLEY	60 @ 64	62 1/2 @ 68
White Beans	1 10 @ 1 15	1 10 @ 1 15
HAY, in bales, per 100 lbs.	65 @ 80	70 @ 85
COTTON—Middlings, per lb.	12 1/2 @ 12 1/2	11 @ 11 1/2
RICE, per 100 lbs.	3 60 @ 4 50	3 75 @ 5 25
HOPS, crop of 1858 per lb.	8 @ 15	8 @ 14
PORK—Mess, per bbl.	17 00 @ 17 25	18 50 @ 19 00
Prime, per bbl.	11 50 @ 12 00	11 50 @ 12 00
BEEF—Repacked Mess.	9 25 @ 11 25	11 00 @ 12 00
Country mess	7 75 @ 9 00	8 50 @ 9 75
HOGS, Dressed corn, per lb.	7 1/2 @ 8 1/2	8 1/2 @ 9 1/2
Lard, in bbls per lb.	11 @ 11 1/2	12 1/2 @ 12 3/4
BUTTER—Western, per lb.	9 @ 15	8 @ 16
State, per lb.	14 @ 26	10 @ 22
CHEESE, per lb.	7 @ 10	6 @ 10
EGGS—Fresh, per dozen	13 1/2 @ 14 1/2	17 @ 18
FEATHERS, Live Geese per lb.	48 @ 52	42 @ 54
SEED—Clover, per lb.	7 1/2 @ 9	7 1/2 @ 8 1/2
Timothy, per bushel	2 25 @ 2 75	2 25 @ 2 75
Alfalfa, broken, per lb.	3 1/2 @ 7 1/2	3 1/2 @ 7 1/2
MOLASSES, New-Orleans, per gal.	38 @ 40	41 @ 45
COFFEE, Rio, per lb.	10 1/2 @ 13 1/2	10 1/2 @ 13 1/2
TOBACCO—Kentucky, No. 1	5 1/2 @ 13	6 1/2 @ 13
Seed Leaf per lb.	6 @ 25	6 @ 25
Wool—Domestic fleece, per lb.	42 1/2 @ 65	38 @ 63
Domestic, pulled, per lb.	32 @ 55	30 @ 52
HEMP—Undr'd Amer'n per ton	140 @ 155	140 @ 165
Dressed American, per ton	125 @ 225	135 @ 225
TALLOW, per lb.	10 1/2 @ 10 1/2	11 1/2 @ 11 1/2
Oil, CARB, per ton	84 @ 88	81 @ 89 00
Portulaca—Peach Blow, per lb.	1 75 @ 2 00	2 00 @ 2 75
Mercers, per bbl.	1 75 @ 1 87	1 50 @ 2 25
Bermudas, new, per bbl.	4 00 @ 4 50	4 00 @ 4 50
TOMATOES—Hermuda, per 4-qt	1 00 @ 1 25	1 00 @ 1 25
ASPARAGUS, per dozen	1 00 @ 1 25	1 00 @ 1 25
TURPINE—Rutabagas, per bbl.	1 00 @ 1 25	1 00 @ 1 25
ONIONS, N. O., new, per bbl.	3 50 @ 5 00	3 50 @ 4 00
APPLES—Prime, Per bbl.	7 1/2 @ 9	8 1/2 @ 9
Dried, per lb.	10 @ 15	12 @ 16
Dried Peaches—pr lb, South'n	13 @ 15	10 @ 12 1/2
POULTRY—Fowls, per lb.	14 @ 18	16 @ 18
Ducks, per lb.	15 @ 16	16 @ 17
Turkeys, per lb.	12 @ 14	13 @ 15
Geese, per lb.	12 @ 14	13 @ 15

	Flour.	Wheat.	Corn.	Rye.	Barley.
22 bus. days this mon.	132,600	18,250	155,000	6,500	8,714
20 bus. days last mon.	137,902	30,541	208,290	14,309	72,500

	Flour.	Wheat.	Corn.	Rye.	Barley.
22 business days this mon.	419,000	310,706	610,000	41,000	129,000
22 business days last mon.	477,150	400,500	680,000	48,000	302,000

Exports of Breadstuffs from N. Y., from Jan. 1 to May 9.

	1858.	1859.
Wheat Flour, bbls	4,655,585	5,151,199
Rye Flour, bbls	2,412	2,633
Corn Meal, bbls	25,656	30,078
Wheat, bush.	450,649	18,916
Corn, bush.	1,315,691	74,350

The following is a statement of the exports of the principal kinds of Breadstuffs, from the Atlantic ports of the United States, since Sept. 1, 1858:

	TO GREAT BRITAIN AND IRELAND.
From New-York, May 6...	380,534
New-Orleans April 29...	3,375
Philadelphia April 27...	20,281
Baltimore April 28...	—
Boston April 29...	40
Other Ports April 23...	11,612
Total from Sept. 1, 1858...	415,800
To about same period, 1858...	3,571,300
To about same period, 1857...	4,572,679
To about same period, 1856...	5,134,053

TO THE CONTINENT.

New-York, to April 26, 1859...	51,825
Other Ports, to latest dates...	6,020

N. Y. Live Stock Markets.—THE CATTLE MARKETS have been moderately supplied during the past four weeks, until yesterday's Weekly Market, (the 18th.), when a good supply was offered. The receipts for the month amount to 13,020, or an average of 3,255 per week.

The present prices range at 12c. to 12 1/2c. for premium grades; 11c. to 11 1/2c. for good qualities; 10c. to 10 1/2c. for medium animals; and 8c. to 9c. for poor grades, with a general average of 10 1/2c.

VEAL CALVES are very abundant just now. The supply has been large during the past month—amounting to 4,567 head. Prices range at 6c. to 7c. per lb., live weight, for prime to extra calves, and 4c. to 5c. for medium qualities. Very young calves sell by the head, at \$1 50 to \$2 each.

SHEEP AND LAMBS.—Receipts of live sheep have been even lighter than last month—the numbers at all the City yards for the past four weeks amounting to only 15,002. They have been scarce and very high, but just now are in better supply, and worth 6c. to 7c. live weight, for choice sheep, and 5c. to 6c. for ordinary stock. Spring lambs begin to come in quite freely. They bring \$2 to \$3 each.

HOGS.—Receipts for the four weeks just ended amount to 20,790—a little falling off from last month. The demand is pretty good at 6c. to 6 1/2c. for corn fed, and 5c. to 6c. for still fed hogs.

The Weather.—During the past four weeks, has been favorable for farm operations. With but few excessively warm days and no frost, with just about sufficient rain for grass and grain crops, and to start the corn and other seeds recently put in, the season certainly promises fair for ordinary farm crops, and for fruit with the exception of peaches, in certain localities. OUR DAILY

Norfolk, condensed, read: April 24, clear, with high winds, peach trees in bloom—25, cloudy—26, clear, warm A. M., light rain P. M., and during 27th; cherry trees in bloom—28, 29, 30, clear, warm and fine—May 1 to 8, very fine warm, growing weather, the mercury reaching 87° in the shade on the 7th—9, warm day, but suddenly changed to cool at night, with high wind—10, cloudy A. M., rain P. M. and during next day—12, cloudy—13 to 16, clean and fine—17, warm rain—18, cloudy, rain at night—19, rainy.

Preserving Strawberries.

A full chapter on the best modes of keeping fruits will appear in a month or two, but we are just reminded that strawberries will be at the height of their season in June. We therefore desire to say to one and all, you may keep strawberries the year round, and in almost their natural flavor and freshness. We have kept them thus in air-tight cans and in sealed bottles, with syrup, and with dry sugar. The can or bottle is to be filled with the fresh fruit—first picked over, and all bruised and green berries removed. A syrup is made by boiling (and skimming) one pound of good sugar with one pint of water; this is poured over the fruit until the cans or bottles are full. They are then partially closed, set into hot water, (cold if bottles are used,) heated to boiling, and a few minutes removed. The vessels are then closed, and sealed with wax. They have opened very finely the present month. The berries may be added in layers with a little sugar between each layer, using no syrup. Treat the vessels the same as if filled with syrup, except that they should be refilled after shrinking in heating—say put the contents of six cans into five.

Report the State of the Crops.

It is very important this season, to get early and accurate reports of the state of the crops in different sections of the country. We shall be glad to have all who can do so, send in a few general statements as to the actual condition of corn, the different grain crops, grass, etc., in their own neighborhoods and those adjoining, so far as their observations have extended. Such reports should be started so as to reach us, at latest, by the 15th of each month, which will enable us to make up a general review in time for the paper, which will, hereafter, be closed up and go to the stereotyper about the 18th. From such reports we can make out a fair statement, which will be of great use to all sections. Said the long-time Commercial Reporter of one of our leading daily journals, just now: "I would rely vastly more upon what I could glean from the incidental letters of the readers of such a journal as the *Agriculturist*, than from all the reports on crops that we could possibly gather in our markets, or in the Commercial papers." We hope our readers will value such expressions of confidence, and endeavor to make these communications perfectly reliable.

To Subscribers in California, Oregon, and Washington Territory.

On looking over and counting our subscribers upon the Pacific coast, during the past month, we were both surprised and gratified at the unexpectedly large number of them. In return for the generous patronage and the kindly appreciation thus received from our far off "brethren of the plow," we have determined to henceforth issue an extra early edition of the *American Agriculturist*, especially for California, Oregon, Washington Territory, Utah, and New-Mexico, and other distant points, including our subscribers in Mexico, Central and South America, and the West Indies. (This edition will also go to subscribers in the Sandwich Islands, and to those scattered over the Eastern Hemisphere in Europe, Asia, and Africa, for there are many such.) The edition will not differ materially from the later edition for home circulation; the chief variation will be the omission of a part of the advertisements last coming in, and perhaps a trifling change in the market reports, which may require a slight alteration by transactions between the earlier and later editions.

The earlier edition will go to press on the evening of 19th, so as to be ready for the Mail Steamers which leave New-York on the 20th of each month. This will be a gain of two weeks in the time of receiving the paper by subscribers on the Pacific.

May we not take this occasion to ask our readers who are to be benefited by the arrangement, to give us their aid in still further extending the circulation of this journal. The general character of the *Agriculturist* adapts it to the wants of our enterprising farmers who have gone to the far West to subdue the virgin soils, and there build themselves homes and fortunes.

Our Seed Distribution will be specially valuable to those remote from the ordinary sources of good seeds. So far, the higher rates of postage have rendered it im-

possible to send seeds very liberally, but we expect before the close of this year to make arrangements to have seeds go as freight to California, and be there distributed at the lower rates of postage charged on shorter distances. Seeds can then be sent for 7 cents an ounce, instead of 20 cents per ounce, as now charged on those sent direct from our office.

The next number of the *Agriculturist* (for July) will begin the second half of the present volume, and we suggest that that will be a good time for commencing new subscriptions. Whenever it is desired, we can always send back numbers from the beginning of the present or previous two volumes, as we keep stereotype plates to print from whenever needed.

Please Speak a Word for the German Edition.

With the present month we close the first year of our German Edition. We are now printing for subscribers 4,500 copies. This we consider a very promising circulation, though considerably below a paying point yet. This German edition seems to meet a want in the country, as there is a very large class of worthy, enterprising German farmers, who desire and need just such a journal as the *Agriculturist*, but who can, as yet, only read papers in their native language. Owing to the failure of every previous agricultural journal in that language, many Germans have been fearful to subscribe for this one. Our German Edition is already a success, and it will be continued long in the future.

Our readers who have German neighbors may confer a favor upon both them and the proprietor, by bringing the paper to their favorable notice. The German edition is as nearly like the English as it can be translated into the German language. We hope to receive a large accession of subscribers to begin with the second year, and will be thankful to any of our friends who will lend their influence to secure this result. Specimen numbers will be furnished free to any one desiring them.

Old Premium Lists to close with June.

In order to avoid confusion, and to prepare for our new Premium list, we find it necessary to ask those who are still engaged in making up premium lists of subscribers beginning with the present volume, to close up their lists during the present month (June). All names received during this month, if to begin with the present volume, may be counted in the old lists, so that those who have partial lists made up, have still time to complete them. Those desiring to do so may now begin to form new lists as noted below.

New Premium Lists can Begin Now.

In answer to several enquiries, we reply that we shall, the coming Autumn, offer as liberal premiums for new subscribers, as those offered the past year. We have not yet arranged the premium list in full, but it will embrace the more valuable premiums hitherto offered, and several new ones, including Mowing Machines and other Farm Implements, etc., etc. We will now say, that any person may at once commence making up a new list of subscribers, and all new names sent in for one year may be counted in, whether the subscriptions commence with the July number or next January. This offer gives the canvasser the double chance, of getting new names to begin now, and also in January. Two half yearly subscribers will count the same as one for a whole year.

When names are sent to be included in premium lists, a duplicate list should be sent at the same time, to be kept on a separate file, for reference in making up the final award at any time when the list is complete.

During the past year we have given out over six hundred valuable premiums. A great number of families are now in possession of a Sewing Machine, a splendid Dictionary, or a Microscope, etc., which they have obtained without any actual outlay of money. How many others will be equally fortunate next Winter, or before, in getting, on as easy terms, one of these articles, or a valuable farm implement? It is not too early to begin the work now, of collecting and sending in the names, as every name will count.

It will be noticed that our premiums are absolute, and not in any case dependent upon competition, or upon what some other unknown individual is doing, so that every person understands exactly what he or she is working for, and what is the point to be reached. These premiums are offered as pay for time and effort expended in bringing the *Agriculturist* before those unacquainted with it—and not in the manner of a gift enterprise. What others pay in commissions to agents, we pay out in this form.

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Any copy of the *Agriculturist*, dated after 1856, can always be supplied.

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Of Vol. XV, we have no copies, and unfortunately, no stereotype plates.

Of Vols. XII, XIII and XIV, we have some sets bound and unbound, at the same prices as named above for Vols. XVI and XVII.

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B. P. JOHNSON, Cor. Sec'y.
Agricultural Rooms, Albany, April 18, 1859.

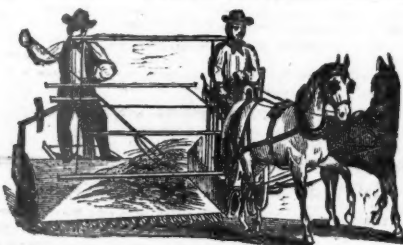
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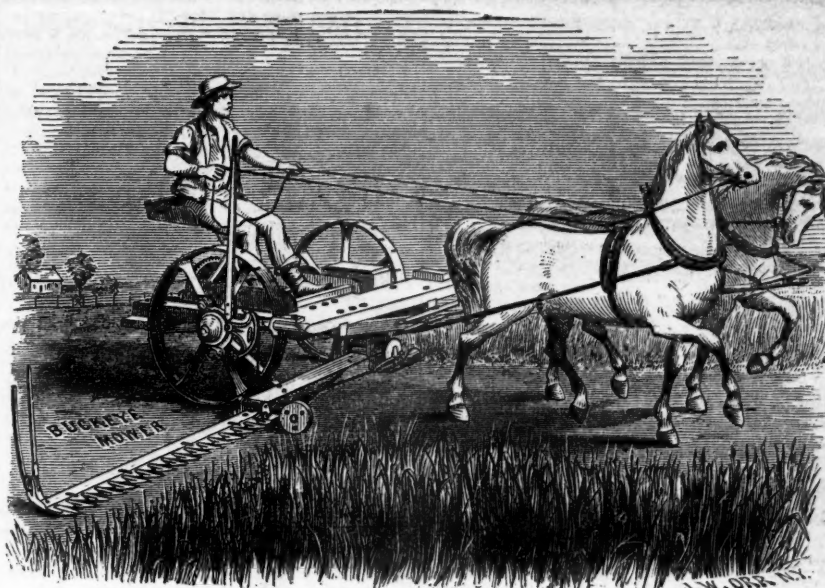
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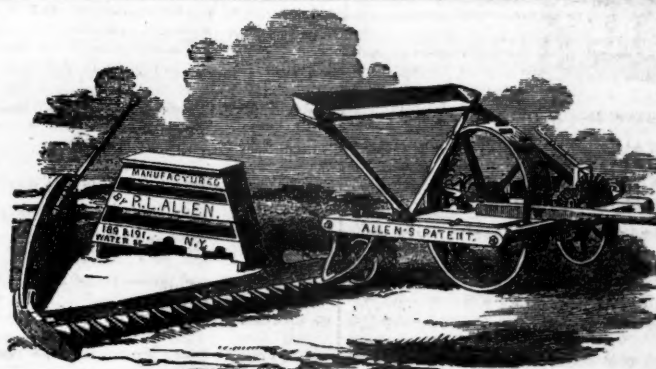
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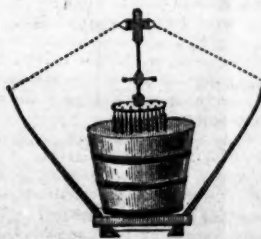
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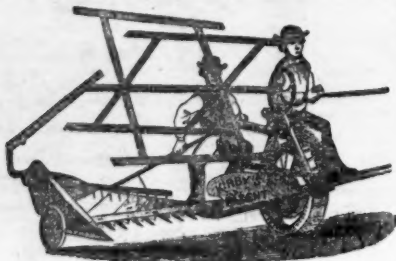
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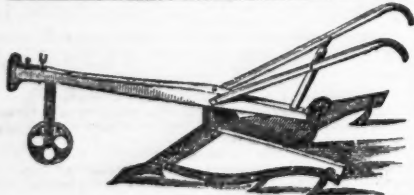
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What constitutes a well-trained horse—To make him come at your call—Flexions of the jaw—Flexions of the neck—Flexions of the croup—Backing—The paces—Leaping.

CHAPTER XVII.

HOW TO RIDE A HORSE.
The saddle—The girths—the stirrups—Saddle-cloths—The crupper—the martingale—the bridle—Spurs—Blounting and dismounting—The seat—the hands—the legs—the paces—Hints for special cases—The art of riding—Riding with ladies.

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Learning to ride—The side-saddle—the girths—the stirrup—the bridle—the martingale—the bit—the dress—Mounting and dismounting—The Position—The hands—the leg and whip—Accidents.

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HOW TO DRIVE A HORSE.
The art of driving—Pleasure driving—How to hold the reins—Driving a pair—Four-in-hand driving—Driving working horses—Plowing—Three-a-breast.

CHAPTER XX.

RAREY'S SYSTEM OF HORSE TAMING.
A new discovery—Previous system—Principles of this system—Its reactions for practicing it—To stable the horse—To approach the horse—Lying up the leg—Laying the horse down—Vices and bad habits—Heating—Kicking—Bawling—Pawing on the halter—Shying.

CHAPTER XXI.

RACING.
Training the racer—Training stables—Feeding horses in training—Laws of racing—Table of weights for different ages—Handicapping.

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Principles of the system—Table of remedies—General directions—Treatment of a sick animal—Diet—Remedies for specific cases—Gossy of diseases.

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Contents for June, 1859.

Advertisers prices should be given.....	176
Ashes, Coal—Uses of.....	182
Asparagus—Large—How raised.....	185
Bank-note—Journey of a.....	186
Beans, Lima—Substitute for Peas.....	186
Bees—Aplary in June.....	183
Bees—Bee Plant for.....	185
Bees—Hunting Wild.....	166
Bees—Keeping New Swarms in the Hive.....	166
“BETTER TIMES” close at hand.....	168
Birds—Robins Useful.....	177
Birds—Sap-suckers not Injurious.....	185
Books—American Weeds and Useful Plants—Farm Drainage—Langstroth's Hive and Honey Bee—Insects of North America—Mothers and Infants—Mrs. Crowen's Cookery—Musical Guest.....	186
Boys and Girls' Columns—Grandmother and the little Girls—Keeping Rooms in Order—Grandmother and child (illustrated)—Editor with his Young Readers—Boys Wanting to Live in the City—Keeping Pets—About Bugs—Problems—A Labyrinth (illustrated)—“Come this Way, Father,” (poetry).....	183, 184, 185
Bread—My First Loaf.....	182
Broom Corn Seed—Cleaning.....	186
CALENDAR OF OPERATIONS FOR JUNE.....	162
California, Oregon and Wash. Ter. Subscribers.....	188
Cattle—Breeding In-and-In, (by Cattle Breeder,) III.....	164
Cattle—Cut Feed for.....	171
Cattle—Grubs in the Backs of.....	185
Chimneys—How to Cure Smoky.....	173
Corn—Cost of a Bushel.....	173
Corn—How to Hoe.....	173
Corn—All Luck in Growing.....	172
Corn—Not too late to Plant.....	165
Crockery—About.....	181
Crop Reports Wanted.....	188
Dairy—No. VI—Prize Article—Butter Making.....	186
Door Blocks.....	186
Dresses for Traveling (by ANNA HORE).....	183
Egg Hatching Machines.....	170
Exhibitions, Agricultural—Reports Wanted.....	192
Experiments—Try.....	167
Farm—Enlarging without Buying Land.....	172
Farmer—How to Become one.....	185
Farmers—Better Times for.....	168
Farm—Work for June.....	162
Fence Posts—How to make Durable.....	174
Fencing—Prize Article No. V.—Rail Fences.....	174
Flower Garden and Lawn in June.....	163
Flower Garden—How to Improve.....	180
Flowers—Bedding Plants.....	180
Flowers—Chrysanthemums.....	181
Fountains for Gardens and Lawns.....	180
Fruits, American—Past and Present, No. IV—Quince.....	178
Fruit Trees—Barren—To Obtain Fruit from.....	178
Fruit Trees—Pear Trees Profitable.....	178
Gardens for Farmers.....	177
Garden—Kitchen and Fruit in June.....	168
German Edition—A Word for.....	183
Grain—Securing Good Seed.....	173
Green and Hot House—Calendar for June.....	163
Hay Caps—Provide.....	165
Hedge Plants for the South.....	175
Hired Men—Treatment of.....	169
Horse-Racing at Fairs—Ohio Society on.....	171
Humbag—A.....	186
Implements—Farson & Houston's Horse Rake.....	172
Insects—Ants Destroyed by Fire Cracker.....	181
Insects—Bark Lice—When Hatched.....	185
Insects—Black Knot on Plum.....	177
Insects—Grubs in Cattle.....	185
Insects—Look out for the.....	187
Junk—Suggestions for the Month, Roses.....	161
Labels on Fruit Trees.....	178
Laying Explained.....	163
Manure—Does Guano Exhaust the Soil.....	185
Marketing Garden Truck, Berries, Fruits, etc.....	169
Market Review.....	187
Melon Vines—Trimming.....	189
Oats—Rust on.....	162
Orchard and Nursery—Operations for June.....	185
Orange—How to Propagate.....	181
Pantry—The.....	172
Papers—Are Agricultural useful.....	185
Peas—Supports for.....	185
Premium Lists—Old to close, New to begin.....	188
Plants—Geographical Distribution of.....	176
Plants—Thinning.....	180
Potato Rot—Questions about.....	166
Poultry—Instinct of the Hen.....	171
Poultry—Large Turkeys.....	171
Pump in the House.....	180
Raspberry Vines dying in Spring.....	185
Reading—No Time for.....	170
Recipes—Medical not Published.....	183
Rest—Occasional needed.....	169
Roads—Good.....	174
Roses in Pots.....	180
Roses—Mildew on.....	185
Seed, Wheat, Rye, etc.—Sowing Good.....	172
Shower—The Passing.....	172
Shrubbery—Uses of.....	179
Soiling—Advantages of etc.....	168
Soiling—Crops for.....	185
Squashes—Kept two Years.....	185
Strawberries—Preserving.....	188
Success—How to obtain.....	173
Sugar Grove—Best conductors for.....	174
Summer Scene.....	169
Swapping—No time for.....	163
Tim Bunker at Home again.....	167
Trees—Desirable Evergreens.....	179
Trees—Hardiness of Fountain Pine.....	185
Trees—Mistaken Notions about insects.....	178
Trees—Propagation of Evergreens.....	179
Turnips—Transplanting—Large Yield of.....	166
Wages—Rates of, in New-York City.....	187
Wages—Woman's.....	182
Water—Pump in the House.....	186
What-Not—The.....	181
Yankee all round.....	186

Business Notices.

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